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ABSTRACT

New provisions in Title I, the federal government's largest elementary and secondary school program, encourage greater use of funds in high-poverty secondary schools. This handbook is the second of a two-volume series designed to support the implementation of the new Title I legislation. The volume illustrates how 13 middle and high schools have successfully put the principles of good practice to work and improved academic outcomes for their at-risk students. It suggests ways in which Title I can be used effectively at the high school level to achieve better results for disadvantaged students. The book is designed to serve as a resource to help educators use the opportunities provided by federal education programs in conjunction with local and state reforms. The programs incorporate the following principles: (1) strengthening and enriching the secondary school curriculum; (2) adapting organizations to increase learning; (3) linking schooling to the future; (4) creating networks of support for students; and (5) providing resources for improvement. Appendices contain contact information, a list of selected organizations that offer related information and services, and a planning and implementation checklist. (LMI)

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Raising the Educational Achievement of Secondary School Students

VOLUME 2 PROFILES OF PROMISING PRACTICES

AN IDEA BOOK

EA 027 208

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Raising the Educational Achievement of Secondary School Students:

An Idea Book

VOLUME 2 PROFILES OF PROMISING PRACTICES

Prepared for the U.S. Department of Education
by Policy Studies Associates
Contract LC 89089001
Task Order EA 940870

UNITED STATES DEPARTMENT OF EDUCATION

THE SECRETARY

August 10, 1995

Dear Fellow Educators:

New provisions in Title I, the federal government's largest elementary and secondary school program, encourage greater use of funds in high-poverty secondary schools. This idea book suggests ways Title I can be used effectively at the high school level to achieve better results for disadvantaged students.

Raising the Academic Achievement of Secondary School Students: An Idea Book, one in a series the Department will issue, presents a mix of research-based ideas and promising approaches to assist secondary school educators in addressing the challenges facing them and in taking advantage of current opportunities. It profiles schools that are achieving better results with high school students, describing the strategies and supports they are using. It is intended to serve as a resource for practitioners, policymakers and parents to use the new opportunities of improved federal education programs in conjunction with local and state reforms.

We encourage you to draw on the guidance in this idea book and the successes of the profiled schools to improve your schools, to help all children learn more, and to work hard toward higher standards.

Yours sincerely,

Dick Riley

Richard W. Riley

400 MARYLAND AVE. S.W. WASHINGTON, D.C. 20202-0100

Our mission is to ensure equal access to education and to promote educational excellence throughout the Nation.

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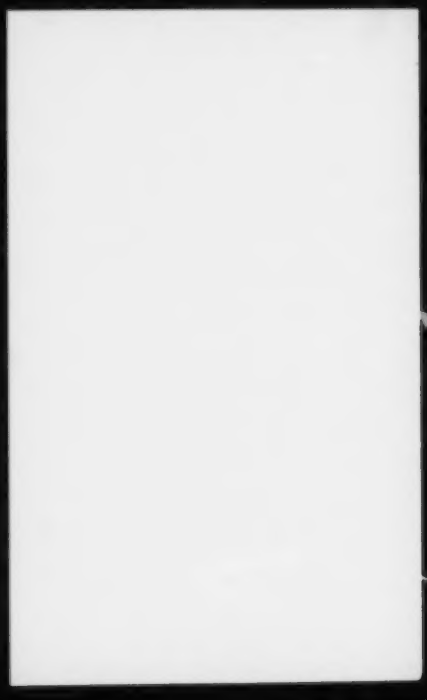

The views expressed in this report, developed under contract to the U.S. Department of Education, do not necessarily reflect the position or policy of the Department, and no official endorsement by the Department should be inferred.

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We extend special appreciation to the teachers, principals, other staff members, and friends of the schools profiled in both volumes of this idea book, who gave so generously of their time to help us compile detailed and accurate accounts of their programs. Without their willingness to teach us about their schools, and their patience as we returned with additional questions, this idea book would not have been possible. Although we were unable to include profiles of all the schools that we contacted as we developed this idea book, all the teachers and principals whom we interviewed contributed to our understanding of the possibilities for improving schools for the most disadvantaged secondary school students.

These volumes were reviewed by a group of practitioners and policymakers who offered valuable feedback and suggestions for revisions: Cozette Buckney of Jones Metropolitan High School in Chicago; Gwendolyn Cooke of the National Association of Secondary School Principals; George Jeffers of New Mexico State University; and Jerome Winegar of the Boston Public Schools. We appreciate their careful reading of these volumes and their thoughtful suggestions.

Finally, our thanks to Joanne Bogart of the U.S. Department of Education and to Elizabeth Reisner of Policy Studies Associates for their support and advice throughout all stages of the project.

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Policy Studies Associates, Inc.
Washington, DC
1995

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ACKNOWLEDGMENTS

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Several new federal initiatives are designed to spur efforts at comprehensive school reform and help secondary schools meet the challenge of enabling all students to attain higher standards. Title I of the newly reauthorized Elementary and Secondary Education Act (ESEA), in particular, aims to improve the teaching and learning of youth in high-poverty schools. Rather than adding on to or replacing small parts of a secondary school student's day, as Chapter 1 services typically did, Title I will serve as a resource for the restructuring of a school's regular program. Four principles, embodied in the legislation, will characterize new Title I programs:

- High academic standards with components of education aligned so that everything is working together to help children reach those standards.
- A focus on teaching and learning.
- Flexibility to stimulate local initiative coupled with responsibility for student performance.
- Links among schools, parents, and communities.

A recent study of Title I's predecessor, Chapter 1, in secondary schools found that Chapter 1 generally played only a minimal role in shaping overall school reform efforts. In addition, Chapter 1 was not a major part of the academic experience of the students who received program services (Zeldin, Rubenstein, Bogart, Tashjian, & McCollum, 1991). The new Title I is designed to operate in a different way. Rather than adding on to or replacing small parts of a secondary school student's day, as Chapter 1 services in secondary schools typically did, the new Title I legislation encourages schools to integrate Title I services more closely into the schools' regular program by funding schoolwide projects in a larger number of schools and by requiring schools to set the same high standards for both Title I students and students in the regular program.

Two other federal initiatives—the Goals 2000: Educate America Act and the School-to-Work Opportunities Act—complement and reinforce Title I at the secondary level. The Goals 2000: Educate America Act, signed into law in May 1994, is providing many states and local districts with funds to develop comprehensive school reform plans that reflect community consensus on important educational outcomes. The School-to-Work Opportunities Act aims to create a comprehensive and coherent system to help youth acquire the knowledge and skills necessary to make a smooth transition from high school to career-oriented work or further edu-

cation. Students successfully completing a school-to-work program will attain a high school diploma, a skill certificate, and preparation for either a first job on a career track or admission to college.

Middle schools and high schools that are successful in improving the academic performance of their students have a number of features in common. They offer students access to challenging, high-quality curriculum and instruction, and they have adopted new organizational arrangements that support improved learning opportunities. They link school work to future opportunities, and they actively address the needs of the whole student, creating networks of support that allow students to succeed. Finally, they use many resources to energize and sustain their work, chief among them the enhanced professional skills of their faculty.

This idea book is one in a series designed to support the implementation of the new Title I legislation. This volume presents research-based ideas and promising practices for schools searching for ways to increase students chances of academic success. A companion volume contains profiles of successful secondary schools that illustrate how they have put principles of good practice to work.

Academically challenging programs can stimulate learning among all students, including those at risk of academic failure. Starting with what children know, new models of intervention expose them to applications of higher-order thinking traditionally offered only to advanced learners.

STRENGTHENING AND ENRICHING THE SECONDARY SCHOOL CURRICULUM

Successful secondary schools engage students in work that is challenging and worthwhile; organizational arrangements ensure that all students, including low achievers, have access to high-quality, academically rigorous subject matter.

Engaging Students in Authentic Work

Students are more likely to engage in academic work when they perceive that it is significant, valuable in its own right, and worthy of their effort. Secondary schools demonstrating success with students at risk of school failure have engaged students in lessons that make sense to them and show the connections between what they learn in school and what they experience in their lives outside of school.

Academically challenging programs can stimulate learning among all students, including those at risk of academic failure. Starting with what children know, new models of intervention expose them to applications of higher-order thinking traditionally offered only to advanced learners. In a challenging academic curriculum for low achieving students, teaching for understanding and meaning take

precedence over purely skill-based lessons—for example, by helping students write ideas that an audience familiar to them would care to know or by reasoning mathematically about issues that involve them.

Restructuring Curriculum

To create a curriculum that is challenging and engaging for all students, the schools featured in this volume have employed four kinds of innovation:

- **Substantive depth in the curriculum.** Sustained study of a few central themes in a discipline can give rise to richer, more complex understanding, leading to educational outcomes of broader utility than the outcomes produced by study that is thinly scattered over a wide array of topics and skills.

- **Interdisciplinary learning.** Many successful secondary schools are discovering that increasing depth often requires an interdisciplinary approach. Developing an integrated curriculum complements reforms aiming to provide students with deeper understanding of complex ideas and related information.

- **Internships, community service, and service learning.** Internships, paid employment, and community service offer a foundation for authentic learning experiences that nurture students' academic and social competence while producing work of value to the community.

- **Integration of academic and occupational focus.** High schools can organize their programs around a particular academic or career focus to create an environment that stimulates common goals and interests among students. In addition, academic instructors can take advantage of applications in the career field to stimulate interest and achievement.

Increasing All Students' Access to Challenging Curriculum

The original rationale for tracking and other forms of ability grouping held that such practices benefitted high and low achievers by tailoring the instruction of teachers to their special needs. However, current research indicates that low-track students perform poorly in school in part because they receive less extensive and effective instruction overall. Designed to make teaching simpler and learning more efficient, tracking as it is usually practiced has had negative effects on the school opportunities and outcomes of many students. Among the approaches schools have used to increase access to challenging curricula for all students are:

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- **Shifting to heterogeneous grouping.** Many schools have replaced tracking in most subjects with heterogeneous grouping. Many schools implement cooperative learning, an approach that, when properly used, engages small, heterogeneous groups of students in structured tasks that stimulate individual achievement, social skills, and integration.

- **Integrating academic and vocational education.** Students in vocational programs can master essential college preparatory content when they are encouraged to take high-level courses in a program of study planned around their vocational interests. Students who believe they are not bound for college may be inspired to consider further schooling when high schools combine college preparatory and vocational studies.

- **Promoting students' success in challenging coursework.** Successful schools adopt effective programs that prepare students to succeed in courses such as eighth-grade algebra and ninth-grade geometry—the gateways to advanced work that is the prerequisite for career development.

Students in vocational programs can master essential college preparatory content when they are encouraged to take high-level courses in a program of study planned around their vocational interests.

ADAPTING ORGANIZATIONS TO INCREASE LEARNING

To support innovations in teaching and learning, successful secondary schools develop new organizational arrangements, as needed. Schools profiled in this volume found two approaches particularly rewarding for making the organizational changes essential for lasting improvement: They created communities of learners on a manageable scale, and they reconceived their uses of time.

Creating Communities for Learners

Successful secondary schools create communities of students and teachers where learning is supported and valued. They often organize into small sub-units, sometimes based on a single academic or occupational focus.

- **Smaller school size.** Although larger schools may achieve some economies of scale and offer a wider range of courses than small schools, a growing body of research on the effects of school size supports arguments for downsizing (Fowler, 1992; Howley, 1989; McIntire & Scott, 1989). Keeping learning communities small makes it possible for teachers to develop flexible, individualized learning plans for students who need

them; students and teachers get to know and understand each other better.

- **Schools-within-schools.** Addressing the anonymous and impersonal nature of large comprehensive high schools, schools-within-schools create a home for students—typically 200 or fewer—and teachers who share an interest or career orientation. Some schools, like Socorro High School for the Health Professions, enroll students seriously committed to a career choice; others, like Tuba City High School, use theme-based units such as those lend coherence to studies and offer opportunities for authentic learning experiences. Teachers in these smaller units find it easier to collaborate over common learning goals and behavior expectations—collaborations facilitated by the curriculum focus. Similarly, students see themselves as part of a learning community with clearly defined goals and expectations.

- **Clusters, houses, and teams.** Providing another way to divide teachers and students, clusters, houses, and teams form heterogeneous groups with more manageable social dimensions within large schools. Students take core courses from teachers on their own teams, a factor that means control of scheduling for a significant chunk of the day rests with the team. Faculty arrange special learning opportunities that extend beyond the traditional class period, regroup students for special projects, offer interdisciplinary units and courses, and make other adjustments to accommodate team needs. Having common preparation periods, teachers can share perceptions of each student's strengths and weaknesses, learning styles, and work habits and develop appropriate responses.

- **The role of choice.** Seasoned observers of successful secondary schools report that allowing students some freedom in choosing their school community may lead to greater commitment and deeper engagement in learning.

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Using Time Flexibly

Besides reorganizing work groups, successful secondary schools use scheduling systems that permit adjusting time allocations to accommodate diverse learning experiences. A common approach to reconceiving the use of time is block scheduling, in which teachers can create class periods that last from 90 minutes to two hours or more. The extended period provides opportunities for students to work together on complex projects and for teachers to make pre-

sentations or arrange experiences that take longer than one period to complete. Another benefit of block scheduling is that teaching longer and fewer periods can reduce the number of students teachers see in a day.

In addition to dividing up the school day differently, a number of restructuring schools have loosened the boundaries of the traditional school day or year to accommodate alternative learning experiences. In a more flexible school week, high school students can combine their program of regular classes with advanced courses at local community colleges or universities in the afternoons and evenings. Other schools add evening classes and summer sessions to expand learning opportunities for students.

LINKING SCHOOLING TO THE FUTURE

One of the primary functions of secondary education is to prepare students to function as informed and productive citizens. Students should graduate as skilled learners who can continue their education in college, technical school, or work-based programs and acquire the skills they need to achieve their adult goals. As they develop into competent adults, students must become lifelong learners, able to pursue their learning goals beyond their formal training.

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School-to-Work Programs

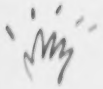
Several school-to-work program models have proven successful in recent years:

- **Tech prep** programs connect the last two years of high school with two years of postsecondary education. A typical Tech Prep curriculum enhances academic courses by focusing on applications of math, science, and communications in the occupational area. Academic experience is often coupled with opportunities for work experience, although students receive most of their training in the classroom.

- **Youth apprenticeship** programs emphasize employer-provided training. During their work experience, participants are paid for their work and monitored by a skilled professional at the job site. A typical youth apprenticeship program also involves classroom instruction tailored to and building on the job experience. Youth apprenticeship and Tech Prep programs sometimes work in tandem.

- **Career academies** use a school-within-a-school model and focus on a specific career field, such as health or finance, that presents good employment opportunities in the local market. Students typically apply to participate. Academies offer curricula integrating career topics with applied, hands-on activities and rigorous academic courses, supplemented with training at the workplace.

For the successful schools profiled in this volume, exposing students to careers and postsecondary education options is an important part of their mission. Among their career awareness activities are field trips to workplaces, job shadowing programs, and career days.



Successful secondary schools expand students' visions to include formal schooling after the twelfth grade and encourage them to continue.

College Prep Programs and Support to Attend College

Successful secondary schools expand students' visions to include formal schooling after the twelfth grade and encourage them to continue.[8] For students from disadvantaged backgrounds, enrolling in college prep classes and performing well in them are only the beginning of raising educational attainment. Once they have met the requirements for admission to postsecondary programs, students from disadvantaged backgrounds usually find the costs prohibitive; families with little college-going experience may not know how to seek out financial aid or how to help their children prepare successful applications. Schools that help their students continue with further education provide support by coaching them through the application process, guiding their search for financial aid, and, in other ways, making postsecondary education a viable option.

CREATING NETWORKS OF SUPPORT FOR STUDENTS

Networks of support that address students' academic and personal needs can enable at-risk secondary students to persist and succeed in school. Successful schools in this volume have experimented with a variety of interventions to support students: more personal and responsive advising systems, mentoring programs providing the student with close contact with an adult, and comprehensive services networks reaching beyond as well as within the school walls. For at-risk students in particular, successful schools take an active role in responding to personal, emotional, and basic survival needs that frequently go unmet in traditional school environments.

School Membership

A sense of school membership is an important prerequisite for student success. Co-curricular activities such as student government, academic or special interest clubs, theater and music groups, and intramural sports teams have traditionally enhanced students' sense of school membership by providing them with additional avenues in which to succeed and find a "niche" in the life of the school. Fostering a sense of school membership for at-risk students requires an expanded role for teachers seeking to influence students' social and personal, as well as intellectual, development. Schools may also attempt to develop a sense of school membership through:

- **Peer tutoring and mentoring** activities that have the potential to stimulate students' commitment to school by linking them through structured relationships with other members of the school community. In this way, students are integrated into the school community, finding a niche where they can make a contribution that will be valued by others. Recognizing that they can offer something of value can be an important source of motivation.

- **Adult mentoring** programs that provide students with an opportunity to form a close relationship with an adult connected with the school. Replicating the influence of a strong parental figure, mentoring programs give guidance and support that is often credited with some at-risk students' success in school and later life. Schools profiled here tend to focus their mentoring programs especially on career awareness, providing opportunities for students to gain exposure to the workplace.

For at-risk students in particular, successful schools take an active role in responding to personal, emotional, and basic survival needs that frequently go unmet in traditional school environments.

Student Advising

Although guidance counselors traditionally serve as students' primary advisors, their ability to provide the quantity and quality of service that at-risk students need is often compromised by caseloads that are too high and responsibilities that are too broad. As a result, most students have very little contact with the one adult assigned to take an interest in them. Most of the schools profiled in this volume have taken steps to ensure that students have sustained contact with adults who serve as advisors. Small-group advisories, homerooms, or other arrangements enable teachers or other staff to actively provide guidance and monitor the academic and social development of students.

Safe and Disciplined Schools

In a school setting, harmonious interaction between students and teachers requires substantial agreement about the expected norms of

behavior. All students must know their obligations and be supported in meeting them. In safe and disciplined schools, students develop self-management skills through classroom routines and school practices that encourage them to contribute positively to the learning of others. One way they can learn appropriate behavior is from adult modeling and coaching. Disciplined schools also take steps to strengthen school safety measures.

Creating Partnerships with Parents

Parents and other family members are crucial links in the network of support that students need to succeed in school. Parents and other family members influence their children's academic and social development by supervising how they spend their time outside of school; fostering the development of their children's confidence and motivation to become successful learners; and influencing the work of schools through their participation in governance, advisory, and advocacy groups.

At the secondary level, however, working in partnership with schools presents special challenges for most parents. Middle schools and high schools are larger, located farther away from students' homes, and often do not have a single clear point of contact if parents want to discuss their children's progress or how they can help. As middle school and high school students progress through adolescence, they grow increasingly independent of their parents. Instead, secondary schools must work with a whole network of adults—including community members and potential employers—who influence students' lives.

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Secondary schools must work with a whole network of adults—including community members and potential employers—who influence students' lives.

Although research indicates that students of all ages do better in schools where parents and other family members are involved, there is little empirical data that shows which strategies for fostering partnerships with families work best at the secondary school level. It appears that the same principles that govern successful elementary school parent involvement programs hold true for middle schools and high schools as well. Schools must view parent involvement as a process rather than a series of isolated events; communication between the school and families should be ongoing and two-way; and there must be commitment on the part of leadership coupled with provisions for on-going assessment of parent involvement efforts to inform future planning.

Developing Comprehensive Support Systems

A school-based program incorporating social, economic, and health services—usually provided by agencies other than the school

itself—can help reduce dropout rates, improve student achievement, and promote long-term self-sufficiency. Among the services having the potential to increase the capacity of students to fare better in school are child care, health care, transportation to and from school and work, family support services, and substance abuse treatment. In a coordinated system, services are comprehensive, responding to the full range of child and family needs. Such a system is preventive, rather than reactive. Separate services are connected by common intake, eligibility determination, and individual family service planning so that each family's entire range of needs is addressed.

RESOURCES FOR IMPROVEMENT

Secondary schools with well-deserved reputations for effectiveness use many resources to nurture and sustain their growth. Among the most important of these resources is school faculty.

Professional Development

Adopting the innovations that contributed to their effectiveness engaged many of the schools in this volume in more extensive, long-term professional development efforts than they had previously undertaken. Successful staff development programs include the following components:

- **New methods and materials** that form the cornerstone of innovations in schools profiled here. Professional development activities must encourage teachers to replace the familiar with new methods and train them to do so.

- **Peer collaboration.** Many new approaches to teaching require extensive collaboration among peers. Interdisciplinary courses, team teaching, or coordinating the activities of a school-within-a-school all demand knowledge and skills that are not typically part of the education of teachers. Professional development activities should help faculties develop new norms that nurture useful collective efforts.

- **Principles of reform.** By cultivating participants' deep knowledge of subject matter, professional development activities support the critical thinking and explorations demanded by new curriculum and instructional programs. Good professional development designs meet the participants' need for understanding key principles of action.

- **Creating a climate that supports professional growth.** Many reform strategies confer greater decision making authority on teachers. In schools described here, teachers testify to the importance of establishing a professional climate that accepts occasional floundering as the natural consequence of trying out promising new approaches. They discovered that, over time, thoughtful experimentation and reflection generate a culture that assumes continuous professional growth.

- **Resources for learning.** Partnerships with nearby universities provide mutually enriching resources for professional development: research sites, credit coursework, preservice and graduate field experiences, and access to subject matter specialists. Schools that are part of a network such as the Coalition for Essential Schools benefit from experiences developed and supported by the sponsoring agency.

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Successful projects typically engage teachers in decision making and problem-solving early and often, and this engagement contributes to the staff commitment that real change requires.

Other Resources

When teachers are involved in setting goals, designing reforms, brainstorming options, and making implementation decisions, long-term improvements are more likely to result. Site-based, shared decision making is evident in our small sample of schools and programs. In most sites, teachers developed the reform plans and identified the resources needed to implement them. Using the flexibility offered by site-based management, faculties adopted multiple approaches to expand learning opportunities for students; flexibility in their internal operations enabled some schools to adopt bold new approaches step by step, department by department, grade by grade, or team cluster by team cluster.

Reforms in many of the schools profiled here began with teachers coming together to brainstorm options for change. Successful projects typically engage teachers in decision making and problem-solving early and often, and this engagement contributes to the staff commitment that real change requires. Active engagement in planning and time to reflect on their experiences as they unfold permit faculties to adjust course thoughtfully and make appropriate haste. Many schools profiled in this volume use time wisely for comprehensive planning.

Change requires extra financial resources—for training, released time, new materials and equipment—and time for coordination and management. Most of the schools in this volume receive supplementary funding from government, foundations, and other sources to support their programs; some receive very large sums.

Project implementers reported that these additional funds were central to their success.

SCHOOLS PROFILED IN THIS IDEA BOOK

Schools that succeed in raising the educational achievement of their students set high standards for student achievement, engage students in the business of learning, and provide students the support they need to accomplish their goals. Toward these ends, successful secondary schools develop new and more challenging curricula, reorganize the environment for learning, develop programs that link schooling to the future, and develop networks of support for students. The school profiles that follow provide concrete examples of real schools that have struggled—and succeeded—in putting principles of good practice to work and improving academic outcomes for their at-risk students.

The school profiles that follow provide concrete examples of real schools that have struggled—and succeeded—in putting principles of good practice to work and improving academic outcomes for their at-risk students.

In selecting schools for this idea book, we chose not to limit our search to schools currently receiving Title I funding (although all the schools profiled in this idea book serve students who would be eligible for Title I services). As noted above, the new Title I is designed to operate differently from previous programs that Chapter 1 typically supported in secondary schools. Rather than adding on to or replacing parts of a secondary school student's day, Title I will serve as a resource to restructure the school's regular program. For low-achieving students to reach the performance standards set by the state for all students, Title I funding to secondary schools will support an accelerated, high-quality curriculum and additional services such as counseling, mentoring, college and career awareness and preparation, occupational information, and enhancement of employability and occupational skills. As a result, the new Title I will support a far greater range of services in secondary schools than did Chapter 1 in the past; the new law encourages practitioners to be creative as they seek ways to use Title I funds to support their school's general restructuring goals.

For this reason, we have deliberately chosen a variety of programs that traditionally have not been associated with Chapter 1; examples include the apprenticeship program at Liberty High School, the internships at City-as-School, and the case management system at West Mecklenburg High School. As a resource for practitioners, we hope the profiles presented here will serve as inspiration and a source of useful ideas that may be adapted by schools seeking new

ways to use Title I to improve the educational achievement of secondary school students.

Finally, several of the schools included in this idea book operate under special circumstances—some have special charters, some are magnet schools, and some receive most or all of their funding from special grants or private sources. Although the flexibility that these circumstances offer has no doubt contributed to their success, these schools still have valuable lessons to offer those operating within the more conventional constraints that schools typically face. Boxes at the beginning of each profile highlight special features or "lessons learned" that we hope will travel across contexts.

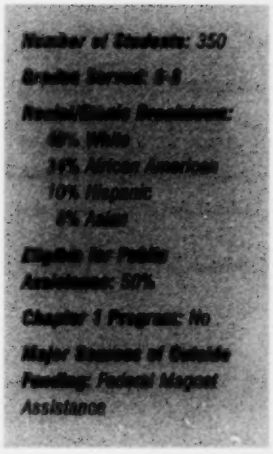
This idea book is one in a series designed to support the implementation of the new Title I program. A companion volume to this one presents the research base for the principles of good practice described here. That volume looks at five interconnected program areas that schools must consider as they search for ways to improve students' chances of success: curriculum and instruction, organizational arrangements, links to adult life, networks of support for students, and resources for improvement. Following the 13 profiles included in this volume, appendices provide contact names and addresses for all the schools profiled, selected references on secondary schools, and contact information on selected organizations offering information or services to schools serving at-risk secondary students.

SO MANY COURSES, SO LITTLE TIME
ENGAGING MIDDLE SCHOOL STUDENTS IN LEARNING

Alternative Middle Years at James Martin School
Philadelphia, Pennsylvania

Key Characteristics

- **Creatively developed electives allow teachers and students to pursue topics that interest them**
- **Team-taught classes integrate learning across disciplines**
- **Cross-grade and mixed-ability grouping allow a wide range of student choice**



Overview

Three times during the school year, Carla and her mother scour through the course roster to decide which courses Carla will take in the coming trimester. Carla's mom used to plead with her to complete her math homework, but now Carla wants to enroll in a course called Finance in addition to her regular math class. This elective course will teach her how to develop budgets and prepare income tax returns. In other subjects as well, Carla has a wide range of options from which to choose. For credit in social studies, Carla chose Coming to America to learn about patterns of immigration, and News, which focused on current events. The roster is different every trimester, and the variety of electives enables Carla and her classmates to take courses that interest them most while meeting district and state curriculum requirements.

Established in 1974, Alternative Middle Years (AMY) at James Martin School features cross-grade and mixed-ability grouping in almost all classes; a trimester system that enables students to choose their own schedules; innovative teachers who design original courses that address both their own and students' interests; and interdisciplinary, team-taught classes that integrate a variety of subjects around a specific theme.

School Context

Founded in response to desegregation requirements, AMY has a student body that is more racially and ethnically mixed than the typical Philadelphia middle school. Although AMY draws students from all over the city, including some from affluent neighborhoods, most students come from low-income families. AMY students are selected by lottery, with a view toward maintaining racial diversity at the school. AMY supplements its budget with a federal magnet desegregation grant of $150,000.

Major Program Features

AMY's primary goal is to stimulate students' interest and skill in learning by allowing them to design their own academic program. The trimester system and the array of courses give students the opportunity to take many courses in the areas that interest them most. AMY seeks to foster students' responsibility for learning by allowing them to develop their own academic programs.

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- **Courses and vertical grouping.** The school year at AMY is divided into 60-day trimesters. Three times per year, students select their courses from a catalog, much as college students do. Teachers design these courses—referred to as "mods"—around topics that interest them and their students. Students choose from approximately 120 courses each trimester; the course roster changes each year. With the exception of some math classes and state- or district-required courses on human sexuality and career exploration, the classes are open to all students in all three grades. The result of this system is a natural mixing of sixth to eighth graders with similar interests. It also affords great flexibility in the courses students may select and in the order they take certain required courses.

  The school encourages parents to accompany their children to "registration"—held in lieu of classes over two to three days—where advisors help students design rosters suited to their specific interests. Students receive several kinds of support for selecting courses. First, homeroom teachers guide students through the course roster during an extended advisory session. Second, the school asks parents to review the course catalog at home with their children and come to registration. Finally, on the days of registration, four to five teachers serve as advisors so that parents and students may discuss course options and come up with alternatives if a course the student wants to take has been filled.

- **Interdisciplinary coursework.** By design, many AMY courses are interdisciplinary. In Future Communities—a science and social studies course—students learn how to make decisions to create a safe, clean, and economically sound future community by drawing on environmental, ecological, political, and economic principles. In the Team Europe mod, 40 students are divided between two teachers—one language arts, one social studies—in learning groups that can change each day. The course integrates writing, research, geography, earth science, social events, architecture, and zoology. Because so many courses are interdisciplinary, teachers often team teach, allowing one teacher to circulate among students and help when assistance is needed. Teachers may also decide to team teach or teach two-credit courses to secure longer blocks of time for classes.

- **Hands-on activities.** The curriculum at AMY is anything but text-bound. Instead, school staff place a heavy emphasis on labs, writing, and hands-on activities in all subject areas. For

The curriculum at AMY is anything but text-bound. Instead, school staff place a heavy emphasis on labs, writing, and hands-on activities in all subject areas.

example, in a language arts course entitled Great Debates, students research controversial issues throughout American history (e.g., ratification of the Constitution, slavery, welfare, and policies toward Native Americans). They participate in debates and critique the forensic skills of their peers. A two-credit/two-block social studies/language arts course entitled Other People, Other Languages examines the culture, geography, and languages of different areas throughout the world and involves students in writing letters to government agencies in these countries. Family Tales involves students in writing narratives and making ethnographs of family stories. Students practice interviewing techniques; edit audio tapes for clarity; learn the forms of grammar, spelling, and sentence structure appropriate for storywriting; and study Alex Haley's *Roots* as an example of a well-constructed family story.

Teachers make regular and sophisticated use of small cooperative work groups so that all students can have enough time to discuss and work through problems. Because groups are mixed ages—sometimes with a range of 11- to 15-year-olds in the same class—teachers are careful in how they group during cooperative learning activities. One teacher mentioned that she forms groups of multiple ages and spreads leadership responsibilities to members of all ages to encourage cross-age learning.

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Accountability

Philadelphia has a mandated middle school curriculum, but AMY is permitted broad flexibility in accomplishing the specified goals. The district's middle school curriculum is covered over the three years that students spend in the program, but the scope and sequence are not prescribed as in other middle schools (except in mathematics, where the core curriculum has a grade-by-grade sequence). Although the district requires that middle school students learn biology, earth science, astronomy, and geology, AMY students take a variety of trimester courses that explore one or two topics in each of these science areas. Students may take these courses in any order they choose. For example, a one-credit science course called Plant Kingdom teaches students about plant classifications, algae, moss, and plant reproduction. AMY students can combine this course with other life sciences mods to meet the district's requirement for coursework in biology.

AMY students select seven courses each trimester. Students must enroll in at least one course in math, science, social studies, and language arts; the other three courses are electives. Although stu-

dents are free to pursue their own interests, some courses are required for graduation, including geometry, pre-algebra, the Animal Kingdom, geology, geography, Presidents, economics, writing, and literature. In addition, students take at least one course in the following areas each year: arts, French or Spanish, computer science, physical/health education, and career education.

Staff use both report cards and portfolios to monitor and assess the progress of AMY students. Developed by teachers, the eight-page report card lists the skills taught in each course. It includes a summary page, a checklist of specific skill ratings that are individually developed for each class, and a narrative assessment that outlines the types of learning experiences covered and the student's participation in and understanding of them. A portfolio of work completed in the class provides evidence of student proficiency. The school has also developed a filing system so that each student has a "credit card" of courses taken and grades earned that is used by parents and counselors. Each course has a list of skills covered, which is used as a cross-check to ensure that all students are exposed to a common core of learning and methodology.

Support for Implementation

Staff development at AMY ranges from full-day conferences to shorter-term projects done at the school. Teachers attend various conferences, including the recent National Conference on Restructuring and the National Middle Schools Regional Conference.

Three years ago, teachers in the AMY program negotiated an experimental contract with the teachers' union and the school district that allows them to teach more courses (six versus the district's five per day) and have fewer preparation periods (five versus eight per week); in exchange AMY teachers have smaller classes (an average of 22 versus the district's 33) than other teachers in the district. Candidates are required to review the experimental contract before accepting a position at AMY. Having fewer planning periods during regular school hours means that AMY staff are frequently involved in meetings and course development during lunch period and outside the paid workday. Teachers' investment of unpaid, personal time represents a major in-kind contribution to the program.

In the long run, however, teachers report that the benefits of teaching in a program like AMY outweigh the costs in time. One teacher described an usually positive atmosphere as one factor that kept her at the school:

Success breeds success. The harder you work to make a go at something and the better it goes, the more willing you are to try it again. Teachers in other schools in the district are likely to work as hard as we do—[on issues such as] class management, discipline, and calling parents. But that is stressful work that leaves you drained.... I'm overwhelmed at certain times—like during grading—but we like what we see here, and people are committed to seeing the school grow.

Evidence of Success

AMY's attendance rate of 90 percent is one of the highest in its region; this is particularly impressive because the majority of AMY students come from outside the neighborhood attendance area, with some students commuting an hour in each direction. The number of applicants has consistently risen over its 20 years of operation, and the school currently has a waiting list of students wanting to enroll.

The rate of acceptance of AMY graduates to magnet high schools with high admission standards continues to be high: 95 percent of eighth-grade graduates in 1993 and 1994 went on to special-selection high schools, a figure significantly higher than other schools in the district. Despite having a higher standard for promotion than other district middle schools, AMY's retention rate is the same as the district's average of 12 percent.

Teachers believe that the school has created "a sense of community that kids become a part of that speaks to their success. We send them on to high schools with healthy self-views and a willingness to take risks."

One teacher at AMY believes that numbers don't necessarily tell the school's full story. "The story is in how kids change in the classroom," she said. "I've seen students go from having no responsibility to really caring. [I've seen] kids who came in the sixth grade and didn't do a stitch of work become kids in the eighth grade who complete their work and realize this work is the key to their own success." At the school's traditional end-of-year graduation ceremony, eighth graders are visibly sad to leave. Teachers believe that the school has created "a sense of community that kids become a part of that speaks to their success. We send them on to high schools with healthy self-views and a willingness to take risks." Said one parent of the school, "AMY helps produce more critical thinkers—not just textbook learning, but students who think for themselves."

STRENGTHENED CURRICULUM AND COMMUNITY MENTORS PREPARE MIDDLE SCHOOLERS FOR FUTURE LEARNING

Western Middle School
Louisville, Kentucky

Overview

Louis wants to be an airline pilot. The daily realities of growing up poor sometimes crowd out his vision of the future, but Louis's teachers at Western Middle School encourage this aspiration and help Louis by planning out a path to help him achieve it. Recognizing that strong math skills are important for his chosen field, Louis has signed up for the eighth-grade algebra course that will enable him to take advanced math courses while he is in high school. Louis's mentor, who works in the aerospace industry, encourages Louis's career goals by bringing him to work.

Western Middle School began restructuring in 1989, when it joined with its feeder high school and a local community college in a collaboration sponsored by the Alliance for Achievement. Western's restructuring efforts positioned the school to respond quickly to state reforms embodied in the Kentucky Education Reform Act (KERA). The school combines an academically challenging curriculum, extensive career education, trained mentors, and staff development programs to support teachers as they help students define and work to reach their goals.

Key Characteristics

- **Algebra Project prepares students for high-level math courses**
- **Job shadowing experiences and trained mentors encourage all students to plan for the future**
- **Professional development activities support teachers in restructuring efforts**

School Context

Western Middle School is located in one of the poorest areas of Louisville. The school's student body is a mix of whites and African Americans, who are bussed in from a downtown Louisville housing project. Five years ago, Western was known as one of the least desirable schools in the city. Now, community members express pride and interest in the excellent programs the school offers, including those arising from partnerships with the Edna McConnell Clark Foundation and the Alliance for Achievement.

Number of Students: *850*
Grades Served: *6-8*
Racial/Ethnic Breakdown:
61% White
39% African American
Eligible for Free/Reduced-Price Lunch: *79%*
Chapter 1 Program: *Yes*
Major Sources of Outside Funding: *Alliance for Achievement, Edna McConnell Clark Foundation*

Major Program Features

Revised and Strengthened Curriculum

- **Focus on algebra.** *Western Middle School and its Alliance for Achievement partners noted that students entering the community college often had poor math skills and tended to drop out of school when they had to take noncredit remedial math courses as prerequisites for college work. Furthermore, the high school found that many incoming freshmen were failing*

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Algebra I—a gate-keeper course for higher mathematics and postsecondary education. To combat these problems, the three partners decided to focus on both math and career guidance to prepare students for advanced math courses in postsecondary education.

Using new math materials and manipulatives purchased with $5,000 in Alliance grant funds, two eighth-grade math teachers worked during the summer to create a new curriculum to teach algebra skills to all eighth graders. They collaborated with high school math teachers to beef up areas where the high school instructors saw students needed more preparation. Now, eighth-grade algebra includes writing activities, real-world problem solving using algebraic concepts, and summer enrichment. Students write instructions about algebra-related math games, solve problems in geometry, and devise ways to distribute food proportionally. Students use math manipulatives to create equations and learn math concepts, such as ratio and proportion. Students can also attend a two-day summer math program, sponsored by the Alliance and involving staff from Western, the high school, and the community college. In the program, students tour the community college, learn about admissions processes, work on the campus computers, and solve hands-on math activities at the high school.

In addition, the school's drawing- and writing-based Algebra Project helps prepare seventh graders to take eighth-grade algebra. Through a series of activities, students learn precise mathematical terms and symbolic language. For example, one activity uses the transit system to teach algebraic concepts. Students ride the bus and learn about positive and negative integers by adding and subtracting streets as the bus changes directions. They count the number of people who get on the bus over a period of time and use this information to explore probability. They write stories to learn about substitution—perhaps about how to come up with a temporary solution for handling a cut without a bandaid. The writing activities help to prepare students for eighth-grade math and to develop the math portfolios required by the new state assessment system.

- **Integrated language arts.** In a professional development program spanning three summers, teachers are learning to implement a thematic, literature-based integrated language arts program at Western. They have learned how to give students rich backgrounds to enhance the reading of novels as well as how to

integrate social studies and science with language arts. For example, in 1993-94, language arts and social studies teachers jointly created an eighth-grade thematic unit about growing up in times of challenge and change. Students read novels about World War II and the Holocaust, including *The Diary of Anne Frank*, drew timelines of the historical period, and wrote narratives from the point of view of historical and fictional characters.

Career Focus

- **Job shadowing.** A job shadowing program provides all eighth graders with at least one visit to a workplace that interests them. In preparation for an eighth-grade job-shadowing program, seventh graders have the opportunity to attend at least one school lunch session featuring guest speakers, including representatives from business, board of education members, architects, and medical professionals. Speakers discuss their careers and the preparation needed to perform their jobs. Once students have decided on their career interests and goals, teachers and a school-based job shadowing scheduler (paid through an Edna McConnell Clark foundation grant) help them find an appropriate job-shadowing experience. Eighth graders participate in job shadowing at least once; in 1993-94, about half had two job-shadowing experiences.

  A job shadowing program provides all eighth graders with at least one visit to a workplace that interests them.

  Teachers take small groups of students to visit a local business, industry, hospital, or other workplace of interest. At the site, each student is paired with a worker who teaches on-the-job skills. For example, one student entered payroll information on a computer as part of a job-shadowing experience at an insurance company. Another group worked with naturalists at a local nature preserve to check the condition of native plants. In collaboration with a local aviation magnet high school, a larger group of 120 students journeyed to a local airport. Students went up in a small plane in groups of four; one student in each group helped fly the plane. Back at Western, students worked on a two-week aviation and aeronautics unit. Twenty-one eighth-graders later decided to attend the aviation magnet program.

- **Career days.** Twice each year Western also sponsors career days that focus on postsecondary education and a wide range of technical and nontechnical career options. During these days, students listen to various guest speakers describe their fields. Past guests have included lawyers, retail workers, plumbers, typesetters, university professors, veterinarians, and medical

professionals. Speakers discuss such topics as preparation, job responsibilities, and salary. Students are encouraged to ask speakers questions that they have formulated during previous class time.

- **Mentoring.** School staff believe one way to help adolescents mature and grow is to pair them with successful community members who serve as mentors and reinforce the importance of a solid education. Originally targeting at-risk African American males, the program now serves more than 40 diverse boys and girls; students considered most at risk are given priority.

  Mentors, including business people, retired school staff, central office administrators, executives, and university students, receive training and support through the district-sponsored volunteer talent center. The center also provides programs for mentors and mentees, such as multicultural awareness and conflict resolution. Although mentors do not tutor students in academics, they do try to influence students in that area by reinforcing the importance of a good education during their weekly or twice-weekly sessions. Currently, students are pulled from elective classes or, on occasion, academic classes; staff and mentors are trying to move the meeting time to after-school.

  Some mentors work with one student; others have up to three. Mentors work with students in a variety of ways, and each relationship is different. The Aquatic Resources Group, cosponsored by the Volunteer Talent Center and the Kentucky Fish and Wildlife Commission, teaches fishing at a nearby lake. Students from a local university take their protéges on campus tours. Mentors occasionally take students to lunch or sponsor pizza parties. Some mentors contact students' parents and meet with students outside of school and on weekends.

Western uses a team structure to group students. Use of time is flexible; each team develops its own schedule to fit its own instructional needs.

Organization and Extended Services

- **Team structure.** Western uses a team structure to group students. Each grade has two teams that include a science, language arts, math, and social studies teacher. For especially large teams, a reading teacher is added. Each team also collaborates with a member of the special education staff. Use of time is flexible; each team develops its own schedule to fit its own instructional needs.

- **Extended school services.** Through state funding from KERA, Western offers students after-school and summer programs, including tutoring and enrichment activities. Students who

need to catch up can work with KERA-paid Western teachers on Mondays, Tuesdays, and Thursdays for one-and-a-half hours after school. On the same days, other teachers take students on field trips. For example, students worked on a unit on animals that included a trip to the local zoo.

Support for Implementation

Funding

In addition to the regular per-pupil funding of about $4,000, Western has a $25,000 two-year grant from the Alliance for Achievement. Three schools in Louisville share a five-year, multimillion dollar grant from the Edna McConnell Clark Foundation; for 1993-1994, Western received about $65,000 from that source for staff development and planning time.

Professional Development

School staff at Western participate in a wide variety of professional development activities. Through the Alliance for Achievement, faculty worked on team building and adolescent issues, and they met with resource people from around the country. The Alliance took some Western staff members to New York City to visit model schools and pick up ideas for their own program. Western teachers observed advisory and teacher-based guidance programs at a variety of schools in the city and brought back useful ideas.

The Edna McConnell Clark Foundation grant pays for the majority of the faculty's professional development. The grant has funded training in a variety of programs, including the Algebra Project, student-based inquiry and problem solving methods, and the integrated language arts program. Funds also pay for travel to staff development seminars and conferences, after-school meetings, and planning time to review curriculum. For example, through the Algebra Project, some teachers attended a training conference in San Francisco to become better versed in the hands-on curriculum. Training topics included using manipulatives and relating algebra to real-world settings.

Evidence of Success

On Kentucky's new state assessments, Western eighth graders improved their math scores by 342 percent over their baseline, compared with the state average gain of 8 percent. Western credits the increase to the Algebra Project and the eighth-grade algebra class, which raises students' competency in solving problems and doing hands-on work. Students performed 31 percent better on state assessments in reading, compared with a statewide average

increase of 10 percent. In science, students improved 142 percent, while in the average school students improved only 25 percent. In social studies, Western scores went up 21 percent, again higher than the statewide average stude..t gain of 7 percent. In 1988-89, Western retained 6 percent of its students; in 1993-94, fewer than 1 percent were retained.

Western students have been selected to attend 22 of the 23 high schools that offer many special programs in the district, some with a competitive admissions process. For example, 41 students were accepted last year to a law, medicine, and computer magnet whose freshman class is only 300 students; 20 other middle schools in the district had students competing for those slots. Staff note that these statistics are evidence that students are looking for options that will help them go on to achieve career goals, rather than attending the closest high school for convenience.

ENGAGING STUDENTS IN WRITING ACROSS THE CURRICULUM USING PORTFOLIOS TO IMPROVE LANGUAGE ARTS INSTRUCTION

Grizzly Hill School
North San Juan, California

Overview

During her first two years at Grizzly Hill, Bonnie avoided writing like the plague. When she began the sixth grade in 1992, however, all her teachers—not just the one who taught language arts—began requiring a significant amount of writing in their classes. Besides the essays she had always written for English, she found that, in science, she was now required to write analytic observation-description papers discussing experiments she had conducted during class. And in math, her teacher integrated creative writing techniques into geometry. To her surprise, Bonnie enjoyed the change and learned that the writing process can use a number of different styles—many of which are fun. At the end of the year, Bonnie's teacher and her colleagues review Bonnie's portfolio to assess the progress of the language arts program at Grizzly Hill and make plans for next year.

Key Characteristics

- Language arts program encourages students to write in all classes, not just English
- Students maintain portfolios in which they demonstrate their proficiencies
- Annual portfolio reviews help teachers reflect on their teaching styles

Beginning in 1989 with a grant from the California Department of Education, the Grizzly Hill School has developed a model language arts program that features writing across the curriculum, portfolio assessment, and capstone projects for eighth-grade students.

School Context

Grizzly Hill is located in a rural county in the foothills of the Sierra Nevada mountains. The school is 40 minutes from the nearest major grocery store and 90 minutes from Sacramento. The teachers have long been a tight-knit group. Most teachers have been teaching at Grizzly Hill since it opened in 1986, and most have more than ten years of teaching experience. In addition, the isolation of the area in which they live and work contributes to cohesiveness.

In 1989, the school received a grant from the California Department of Education to develop a model language arts program to meet four objectives: (1) engage students in writing across the curriculum; (2) provide students with writing experience in the eight domains of writing delineated in the state assessment program; (3) give students experience in all stages of the writing process; and (4) assess students' writing skills through the use of portfolios. Initially, the school used its grant to fund two teachers to attend the California Literature Project, a month-long training

Number of Students: 170
Grades Served: 4-8
Racial/Ethnic Breakdown:
94% White
6% Hispanic or American Indian
Eligible for Free/Reduced-Price Lunch: 70%
Chapter 1 Program: Yes
Major Sources of Outside Funding: California Department of Education Middle Schools Demonstration Program

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institute at California State University in Sacramento. The teachers received instruction on how to use portfolios in their own classes and began a rigorous writing program, but the school had no mechanism through which to institutionalize the process. However, in 1991, things began to change when a new principal convened a faculty retreat to discuss how to strengthen the curriculum and qualify for a second language arts grant.

Major Program Features

In response to the principal's challenge to create a stronger curriculum, the faculty members divided into four groups, each responsible for developing a plan to meet one of the four grant objectives. Each group identified (1) knowledge and skills that students need in order to meet the objective, (2) areas where staff need training, and (3) ways to determine whether students and staff were meeting the objectives. At a meeting in November 1991, the school faculty adopted all four plans. During the rest of the school year, the teachers received training in the various stages of the writing process, the eight domains of writing specified in the California assessment program, writing across the curriculum, and the use of portfolios to conduct holistic writing assessments. They also began to implement the changes described below.

Writing Across the Curriculum

- **Teaching the writing process.** Students practice the writing process in all their classes. They brainstorm ideas; prepare outlines; write rough drafts; share their work with peers, teachers, and parents; edit; and complete final drafts. Most teachers hang posters showing these stages in their classrooms. Students also learn to write for specific purposes—stories, reports, autobiographical incidents, problem-solution papers, biographical sketches, speculations about cause and effect, observation-description papers, and evaluations.

- **Writing in all classes.** Students write extensively in all of their classes. In science, for example, students complete a writing assignment at the end of each unit. Eighth graders studying the heart are asked to write a problem-solution paper about tobacco. They identify a problem related to the heart and caused by tobacco, explain how tobacco causes the problem, and discuss the effects of reducing tobacco on the heart. Also in science, sixth graders learn how to write speculation papers about cause and effect, create stories, and write evaluations. One sixth-grade group studying the scientific process of photosynthesis wrote and illustrated story books for younger children on photosynthesis. In math, most teachers assign weekly writ-

ing problems. In one fifth-grade class, students were asked to choose a geometrical shape and write an autobiographical incident based on that shape.

- **All-school writing exercises.** Twice a year, every student at Grizzly Hill creates a writing sample based on the same prompt. The writing samples are scored by teachers using rubrics that they have developed. In 1993-94, each student was asked to write a problem-solution paper in the form of a letter to the principal in which they identified a problem, issue, or situation in their classroom or school, proposed several solutions, chose one solution, and explained their selection. Teachers invited seventh- and eighth-grade students to evaluate and score the writing samples. According to the principal, students learned ways to enhance their writing through this exchange with teachers.

- **Capstone projects.** Each year in the spring, eighth graders conduct an extended research project on a local environmental or community issue. Students work alone or in small groups to research, write, and produce multi-media presentations of their findings. They present the results of their work during a special evening ceremony in front of parents, teachers, and other students.

  In 1994, one student made a sound and slide presentation of the eighth graders' trip to Sailor Basin, an old growth forest. Another student wrote a report on the effects of logging under the three- acre exemption in Nevada County. Three students created a database of information about brown and rainbow trout in Spring Creek. Another group wrote a report on the effects of pollution on forests, water, and people. In developing their presentations, students received assistance from individuals from the Bureau of Land Management, the Yuba Watershed Institute, and the Sierra Biodiversity Institute.

Each year in the spring, eighth graders conduct an extended research project on a local environmental or community issue. They present the results of their work during a special evening ceremony in front of parents, teachers, and other students.

Portfolios

All the students at Grizzly Hill have a portfolio that contains the writing they have produced for their classes. The portfolios include completed work, work in progress, and comments about their work from teachers, peers, and parents. Teachers use the portfolios to assess student performance; students are evaluated according to their individual progress and not in comparison with each other. At the end of the school year, each student selects one writing sample from language arts to keep in a permanent portfolio; each may also select one to three pieces of writing from other courses.

Community members whose careers or hobbies require them to keep portfolios introduced students to the concept of portfolios during the 1991-92 school year. These individuals shared their photographs, drawings, writings, and furniture samples with students. Every year the school holds a portfolio day in which professional artists display their work portfolios for students.

Once each year, Grizzly Hill also holds a portfolio night in which students share their portfolios with their families. In addition, students receive awards for academic progress and excellence, and students who have won county-wide contests are recognized. At portfolio night, each writing domain is represented by a booth. At the portfolio night in the spring of 1994, for example, there was an evaluation booth where parents tasted cookies, evaluated them, and learned from students how to write an evaluative paper.

Support for Implementation

Staff Development Opportunities

Most of the teachers at Grizzly Hill have attended month-long institutes sponsored by the California Literature Project at California State University in Sacramento. At the institutes, teachers read adult literature and divide into groups to discuss what they have read. They also receive training on portfolio assessment, writing across the curriculum, and the different stages of the writing process. Teachers who attend the month-long institute meet with their group 12 times over the course of the next two years. During these meetings, teachers share their experiences with portfolios and writing across the curriculum. Besides meeting on a regular basis, groups visit other schools to share their experiences. The Literature Project also offers two-day workshops four or five times a year that address current topics in education.

Portfolio Reviews

Each year, a review team consisting of the principal and two teachers visits each classroom and examines three portfolios. By looking at a few portfolios, the team can determine whether students are writing in at least three domains, whether they are writing in all their classes, and whether they are practicing the different stages of the writing process. After reviewing the portfolios, the team meets with the classroom teacher to provide feedback. Teachers say they welcome these reviews because they allow time for reflection on their teaching in a collegial situation. According to the principal, the reviews are a cornerstone of the language arts program at the school.

Each year, a review team consisting of the principal and two teachers visits each classroom and examines three portfolios. According to the principal, the reviews are a cornerstone of the language arts program at the school.

Evidence of Success

Eighth-grade students at Grizzly Hill take the California Test of Basic Skills (CTBS) in several subjects. They also complete a writing sample, as do all of the eighth graders in the county. Before 1991, the students at Grizzly Hill typically had high reading scores on the CTBS, and average scores in other areas. Their scores on the writing sample, though, were among the lowest in the county—with between one-half and two-thirds of them failing. In the past three years, Grizzly Hill eighth-graders have maintained their strong CTBS scores in English and have improved their performance on the writing sample. Sixty-five to 90 percent have passed the writing sample during the past three years, giving Grizzly Hill one of the highest passing rates in the county.

In 1992, Grizzly Hill was selected by the California State Department of Education to receive a second three-year grant and become a dissemination site for its language arts program. Accordingly, the school hosted a one-day conference, attended by 40 teachers from throughout northern California. Visiting teachers observed classrooms in the morning and met with teachers in the afternoon. Because Grizzly Hill is a dissemination site, one teacher currently serves as a coach for a school that has received a middle school demonstration project grant to develop a model language arts program. In addition, the whole faculty will serve as consultants in 1994-95 to a different school during its program quality review, a cyclical review process in which a school identifies a problem area and requests assistance from another school. This school has asked the faculty at Grizzly Hill to help them in the area of language arts.

Teachers indicated that the emphasis on writing in every subject has changed their approach to teaching. Teachers have to plan their curriculum and instructional methods in ways that promote higher-order thinking skills and lead to engaging writing assignments. They can't rely on textbooks and worksheets, and they can't focus on teaching discreet skills. According to a sixth-grade teacher, "The emphasis on writing has made a big difference. The students perceive themselves as authors, and they are comfortable working collaboratively to critique each other's work. This wouldn't have happened if we were still using worksheets."

The principal commented on the language arts program: "The culture of the school has changed with this program. If I were to leave, this part of the school would stay. The teachers feel a sense of ownership towards it."

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CLUSTERS AND TEAM TEACHING
BUILDING CONNECTIONS BETWEEN STUDENTS AND TEACHERS

Thurgood Marshall Middle School
Lynn, Massachusetts

Key Characteristics

- **Students work in clusters to allow more individualized instruction and flexible scheduling**
- **Daily common planning time and team teaching enables teachers to design complementary and collaborative curricula**
- **Extensive staff development and monthly support groups bolster teacher innovation**

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Number of Students: *776*

Grades Served: *6-8*

Racial/Ethnic Breakdown:
47% White
28% Hispanic
15% African American
10% Asian

Eligible for Free/Reduced-Price Lunch: *68%*

Major Sources of Outside Funding: *Chapter 1, Chapter 636 (desegregation funding), Edna McConnell Clark Foundation, Carnegie Foundation*

Overview

Mr. Peters, a history teacher at Thurgood Marshall Middle School, used to spend more time keeping order in the classroom than teaching. Rather than sending students in droves to the principal's office, he often simply called in sick—too frustrated and worn out to deal with the stress. Today, Mr. Peters team teaches with five colleagues, scheduling his days as the team sees fit and teaching interdisciplinary units that integrate English and social studies. He hasn't missed a day of school in three years.

In 1987, Thurgood Marshall began a restructuring effort that improved student performance and behavior as well as teacher morale. Instead of attendance problems and low success rates, the school today is characterized by innovative groupings that function as schools-within-schools, flexible scheduling, cross-disciplinary classes, extensive staff development, and rising student test scores.

School Context

Located in the heart of an industrial downtown business district in disrepair, Thurgood Marshall is surrounded by low-income tenements and government-subsidized housing complexes. Almost 80 percent of Thurgood Marshall students live in the surrounding neighborhoods. Most of the limited English proficient students speak Spanish as their first language, but a growing population of immigrant students from former Soviet bloc countries speak Russian; 25 percent of the students have a limited English proficiency.

In the 1980s, Thurgood Marshall's poor reputation was no secret. When the school district established several magnet schools in 1987 to build racial balance to its schools, few families were tempted by Thurgood Marshall, where disciplinary problems had reached crisis levels. In the 1987-88 school year, the school handed out 593 suspensions—an average of more than three a day. Increasing numbers of students failed courses and were retained; morale plummeted among both students and teachers; and the average daily attendance rate was 67 percent for students, while faculty took an average of eight sick days a year.

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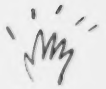
Major Program Features

When Thurgood Marshall became a magnet in 1987, using state funds for "minority isolated" schools, the school's principal convened a planning committee of teachers and administrators from every department to lead a massive restructuring effort. After reviewing literature on successful schools and visiting Boston area schools, the committee reorganized Thurgood Marshall in 1988-89 into cluster groups of 100 to 150 students linked with a team of teachers. All teachers received staff development introducing them to the proposed program and to teaching strategies and the issues surrounding school restructuring. Teachers received training in block scheduling, team grouping, cooperative learning, writing across the curriculum, and subject integration. Training opportunities allowed teachers to react and offer input before the plan was implemented.

Teachers have considerable authority over the instructional program within their clusters.



Clusters

Thurgood Marshall has seven clusters, at least one in each grade. Each cluster of students has a team of teachers, one from each of the following six departments: English, mathematics, science, social studies, special education, and bilingual education. This arrangement enables about 80 percent of the school's bilingual and special education students to attend regular classrooms. Students are assigned to a cluster at random and stay with the group throughout the school year; clusters change annually.

- **Teacher empowerment.** Teachers have considerable authority over the instructional program within their clusters. For example, an English and science teacher on one team decided that the 45- to 50-minute English period was too brief to cover the lesson plans. The teachers devised a schedule for their cluster in which students would have a double period of English three days a week in lieu of the regular period five days a week. Class periods are fixed only for those classes that are taught out of the cluster—reading, foreign language, art, and music.

- **Interdisciplinary courses.** The cluster structure and teacher planning periods facilitate interdisciplinary lessons and projects. Examples of cross-disciplinary learning include a project in which students traced their ancestral heritages, a week-long interdisciplinary unit on ecology during Earth Week, and a collaborative unit on the Holocaust. In the Holocaust unit, students learned about nutrition, history, and society; calculated the numbers of people involved; interviewed a Holocaust survivor; and wrote papers integrating what they had learned.

In one cluster, an interdisciplinary unit on homelessness grew into a community service project for the entire school. Students read a book about a homeless family and wrote papers; learned about affordable housing and wrote letters to Congress; studied nutrition and health issues related to homelessness; and worked on budgets and studied the financial aspects of being homeless. At the cluster's initiative, the school formed a partnership with a nearby homeless shelter. Students collected school and other supplies for families there and hosted a walk-a-thon to raise $1,000 for the shelter.

- **Common planning time.** Within clusters, teachers share 30 to 45 minutes a day to plan interdisciplinary units, discuss student progress, and meet parents. This planning time reduces teachers' sense of isolation and increases their sense of professionalism. Teachers also meet after school for additional planning.

- **Group identity.** Clusters provide a group identity for students. Each cluster has its own bulletin board filled with students' honor roll lists, upcoming events, and student council elections. Clusters sponsor their own programs, host field trips, and compete with other clusters in community service activities. One cluster set up mailboxes for teachers and students in the hallway so cluster members could leave supportive letters for each other. Teachers agree that clusters foster a sense of school pride for teachers and students.

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Professional Development

Guest speakers and workshops have replaced faculty meetings focused on administrative matters as the standard staff development events. Teachers attend monthly workshops on middle school issues and innovative instructional strategies such as cooperative learning, reading and writing across the curriculum, conflict resolution, listening skills, and student learning styles. In addition, the school is a member of the Middle Grades Alliance, a support group for teachers established and funded by the state department of education and the New England League of Middle Schools. Teachers from Thurgood Marshall frequently participate in dinner meetings, study groups, and one-day sessions with colleagues from other middle schools in the area to share ideas. Administrators encourage teachers to use professional days to attend conferences or other staff development activities; the school provides substitute teachers and, when possible, associated fees.

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Support for Implementation

Most of the planning and oversight for the restructured program is carried out by Thurgood Marshall faculty. In addition, the school collaborates with parents and other community members through a community advisory board and a parent liaison. Initially, Thurgood Marshall staff negotiated with the state departments of mental health and social services to offer priority referrals and set up support groups for the school's at-risk and disadvantaged students. However, state budget cuts within these agencies eliminated the resources that had been reserved for partnership with the school. Now, partnerships—such as one with Salem State College that provides the school with tutors and teacher aides—offer additional support. Another partnership with Fleet Bank pairs bank employees with Thurgood Marshall students for a full year of mentoring and tutoring activities.

Evidence of Success

Thurgood Marshall Middle School quickly reaped success from restructuring. By the end of the first program year, the average number of teacher absences was 4.7, nearly half the average from the previous year. Student suspensions dropped to 300, about half the total for the year before. At the end of the second year, after the restructuring was complete, teacher sick days dropped below four per teacher and student suspensions declined to 260. Student attendance increased to more than 90 percent, where it remains today.

Students' standardized test scores also improved. Scores on the Massachusetts Educational Assessment of Progress (MEAP) improved steadily after restructuring; now, none of the school's aggregated scores is below the district median. Scores on the California Achievement Test (CAT) also rose. In 1987, the school's average CAT score was below grade average; from 1991 to 1993, CAT scores increased from 7.1 to 7.9 in seventh grade and from 8.2 to 8.8 in eighth grade. Enrollment also is rising. In the 1994-95 school year, the school will add an extra cluster to accommodate 130 additional students.

Thurgood Marshall's cluster and team approach has successfully individualized the learning environment for students and teachers. Teachers point to an atmosphere of trust and companionship foreign to many schools. As one teacher commented, "Kids come before and after school just to talk. It happens all the time." The magnet coordinator attributes the program's success to the effectiveness of the clusters in forging a link between a team of teachers and

Thurgood Marshall's cluster and team approach has successfully individualized the learning environment for students and teachers. Teachers point to an atmosphere of trust and companionship foreign to many schools.

their students: "The teams are really communities, and school is no longer just a place to spend five hours." She cites the daily team planning period as a critical contributor to teachers' improved understanding of their students:

> *As part of a team, you [the teacher] sit down with all the other teachers [in your cluster] at 10:30 a.m. every day. The teams provide teachers with the opportunity to share their concerns with the other team members, and you have a lot better handle on dealing with the daily realities of the classroom. Before, if you were having a problem with a student, you either blamed yourself or you blamed the student. Your options were to keep him after school or throw him out of class. Now, [the student] is not just a problem, and you can get to the bottom of what is going on with this kid.*

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DROPOUT PREVENTION IN THE MIDDLE GRADES
HELPING AT-RISK STUDENTS MAKE UP LOST TIME

The Urban Collaborative Accelerated Program (UCAP)
Providence, Rhode Island

Overview

Jolene was fed up with school and frustrated that, once again, she would have to repeat the seventh grade. Two years after entering the Urban Collaborative Accelerated Program (UCAP), Jolene has renewed vigor and is ready to enter the tenth grade with her peers; she even hopes to attend college. Jolene caught up through an accelerated program that helps middle-school students complete three years of school in two, matriculate into a regular high school, and graduate with their peers.

Founded by Rhode Island in collaboration with three urban school districts to address soaring dropout rates in those cities, UCAP provides accelerated classes and individualized services to middle-school students at high risk of dropping out.

School Context

The Urban Collaborative Accelerated Program began in the fall of 1989 as a middle school serving selected at-risk students from three neighboring cities in Rhode Island—Providence, East Providence, and Pawtucket—where dropout rates ranged from 25 percent to 44 percent. All students in UCAP have repeated at least one year of school and have other behaviors—chronic absenteeism, low grades, or a history of suspensions—that identify them as at risk of dropping out of school. Many of these students come from the state's poorest and most violent neighborhoods and have chaotic family histories.

UCAP attracts more than twice as many students as it can serve. Teachers—who recruit and admit students—target those who most need UCAP's offerings and have a realistic chance of succeeding. Students may stay at UCAP for a maximum of two years, during which the school challenges them to master the equivalent of three grade levels.

Major Program Features

UCAP helps students develop the academic and social skills needed to successfully complete high school. UCAP's director modeled the program after a smaller-scale summer program he had managed in Providence. With support from superintendents of the three neighboring cities, the director gained an endorsement from the state

Key Characteristics

- Accelerated program allows retained students to catch up with their peers
- Personalized learning environment engages students and develops responsibility
- Experimental learning opportunities foster learning in the community

Number of Students: *105*
Grades Served: *7-9*
Racial/Ethnic Breakdown:
36% African American
31% White
25% Hispanic
5% Asian
Eligible for Free/Reduced-Price Lunch: *81%*
Chapter 1 Program: *No*
Major Sources of Outside Funding: *Tuition from participating school districts, Rhode Island legislative grant, Rhode Island Department of Education dropout prevention grant, private industry, foundations*

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legislature for a larger initiative to address rising dropout rates in the area.

Individualized Instruction and Accelerated Promotion

- **Accelerated curriculum.** UCAP's curriculum is continually changing. The academic focus is on basic skills and problem solving. In English and social studies, instruction is organized around thematic units rather than isolated subjects. English and social studies are taught as a humanities unit, during double class periods and to twice the usual number of students. Humanities themes may include the American colonial period, Native Americans, and the Holocaust. Teachers team teach or share classroom management and instructional roles. Because team-taught classes are larger, class sizes range from 15 students with one teacher to 28 students with two teachers.

  Because UCAP emphasizes individualized instruction and student progress, students are grouped heterogeneously, not by grade level or ability. Teachers encourage students to take responsibility for their own learning and to complete their coursework and return to grade level as quickly as possible. To facilitate this, teachers provide large amounts of optional work so students can work at home on their own time; although completing in-class assignments is mandatory, homework completion is not. But because all UCAP students trail their peers by at least one grade, they are motivated to catch up quickly.

  In addition to its core curriculum and state-mandated health and sex education classes, UCAP offers elective classes in computers, animal studies, bowling, dancing, arts, pottery, sign language, and cartooning. Artists, technicians, and other community members teach these classes in the afternoons while teachers grade course work, prepare for classes, work together, and meet in committees.

- **Flexible use of time.** There is no such thing as a "typical" schedule at UCAP. Teachers, who have complete control of instructional time, create individual weekly schedules to suit changing instructional needs. Teachers meet weekly as a group to plan future class schedules. Classes can run from 50 to 90 minutes; often, teachers reserve an entire morning for extended study of a particular subject or theme. Teachers rotate the extended classes across all disciplines to give subjects equal time throughout the semester. Elective classes are held in the afternoons, four times a week. Teachers have common planning

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periods every afternoon, when students take elective classes, and on Fridays, when students are dismissed early. Once a week, teachers discuss individual students' progress and problems. Teachers also have weekly staff meetings with the director to decide on a range of other issues, from policy to upcoming events.

- **Assessment of student progress.** UCAP students can advance to the next grade level of coursework as soon as they meet criteria developed by teachers; students do not need to earn Carnegie units before progressing and can progress at different rates in different subjects. The criteria include requirements for every grade level and every subject, incorporating objectives from each of the districts that sends students to UCAP. Criteria for every subject include 10 to 20 topics and three or four skill levels. Criteria in all subjects are skill-based. Students demonstrate that they have met criteria through mastery of skills on projects, and in social studies through their mastery of content as well.

  Teachers assess student progress on an individual basis, paying particular attention to completion of assignments, understanding of content, and quality of work. Students must meet all criteria at a mastery level of at least 80 percent in order to move on to the next grade level in a specific subject. Schools that admit UCAP transfer students receive transcripts and are familiar with UCAP's assessment methods.

UCAP uses a student-managed disciplinary process to help students take control of their lives and develop individual and community responsibility, despite the high number of UCAP students with histories of discipline problems.

Student-Created Discipline Policy

UCAP uses a student-managed disciplinary process to help students take control of their lives and develop individual and community responsibility, despite the high number of UCAP students with histories of discipline problems. Students develop school rules and monitor their implementation and enforcement through a student discipline committee. All students take rotating turns on the committee to hear and rule on cases presented by teachers and other students. Often, the rules developed by students are stricter than those devised by staff. For example, students might change a "no swearing" policy to "no swearing in any language." Teachers say the student involvement improves students' attitudes toward school and results in accelerated learning. Although UCAP expels about 10 percent of its students every year, the rate of disciplinary infractions is lower than in other schools.

Experiential Learning Options

With private funding, UCAP sponsors several programs that allow students to engage in learning outside the classroom, apart from the regular demands of the academic schedule.

- **Community service projects.** UCAP has always incorporated community service projects into the school experience. Community service is a popular elective that students may participate in four afternoons a week. In 1993-94, 45 students volunteered at such places as a Head Start program, a neighborhood ministries program, and a public library. A teacher coordinates the program, arranges and interviews job sites, and monitors activities.

- **Career mentorships.** UCAP began a career mentorship program during the 1993-94 school year. Supported by a grant from a private foundation, the program placed seven students in job sites throughout the Providence metropolitan area and paid them $15 a day; in 1994, 15 students were placed. Students spend one day a week at these job sites, working closely with an adult mentor. (This arrangement requires students to miss class one Friday morning a week.) UCAP staff select students to participate who might benefit from this program and could handle missing class. A UCAP teacher—paid an additional stipend—places students in such sites as a hospital, a zoo, a law firm, and the attorney general's office. In 1994-95 school year, staff anticipated that there would be 15 to 20 mentorships.

- **Summer programs.** Since 1991, 25 UCAP students have participated in a separately-run summer program, created by UCAP's director, that offers opportunities for recreation and interdisciplinary study, culminating in the production of a book. Other UCAP students worked at a zoo, attended basketball camp, or tutored other UCAP students; UCAP also offers summer tutoring in math for about 15 students. During the summer the UCAP counselor and all the teacher make home visits to all incoming students and their families. These home visits provide the school with valuable background on the students and signal to students that UCAP is going to be a very different experience from the schools from which they came.

Supportive Counselors

The school has a full-time counselor with a background in social work, who makes home visits to incoming students and their families; information from these visits is available to other teachers. The

counselor meets regularly with two part-time counselors who monitor UCAP alumni who have entered more traditional high schools, and may also make home visits. Counselors serve as problem solvers and liaisons between UCAP, the high schools, and alumni to ensure the proper flow of information and support. UCAP counselors sponsor alumni gatherings, such as field trips and pizza parties, "just so they know we're still here and that our doors are always open." These events give UCAP graduates time to socialize with their peers—a rare opportunity because the school draws students from three school districts.

Support for Implementation

Legislative Charter

UCAP's charter gives it autonomy to initiate many of its unique programs and approaches to education. The school is an independent public entity, with total control over all aspects of its operation, including such key factors as budget, curriculum, and personnel. It is run by a board of superintendents of the participating school districts, with day-to-day oversight by a director who reports to the board on a monthly or bimonthly basis.

Teacher Empowerment

UCAP has four full-time and four part-time teachers in addition to a project director, secretary, teacher's aide, social worker, and part-time librarian. Teachers at UCAP are closely involved in all decision making affecting the operation of the school. Together, teachers decide which applicants will be admitted to the school and whether a student is to be expelled. Teachers also have significant input into hiring other teachers and staff; they are responsible for scheduling the academic week, defining the curriculum, and scheduling the yearly school calendar. The project director attributes this autonomy to the simplicity of the school's administrative structure.

Funding

UCAP's operating budget was about $6,850 per student in FY 95, a figure comparable with the average per-pupil expenditure in Rhode Island in 1991-92 ($6,830). Not included in UCAP's operating budget are special programs and services discussed above, which are funded through private sources. In each of the school's first five years, UCAP raised about $75,000 to support special programs. Some of these private funding sources include Patriot Metals in Providence, Pawtucket's Memorial Hospital, small charitable and community foundations, the New York Community Trust, electric and telephone companies, and two family trusts.

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Evidence of Success

More than 80 percent of UCAP graduates remain in school after entering traditional high schools, and student grades, attendance, and attitudes have improved. Although graduates' academic performance is slightly below average, their average post-UCAP grade point average of 2.4 on a 4.0 scale is a significant improvement when compared with their average pre-UCAP grades of 1.6. On standardized tests, pre-UCAP scores on the MAT were in the 24th percentile; post-UCAP scores have reached the 43rd percentile.

According to a 1992 evaluation, students were absent an average of 42 days each school year before they came to UCAP; after they left UCAP, their absences fell to an average 18 days a year. Behavioral problems have declined—according to parents and mainstream school teachers, UCAP graduates get into few fights, seem happy, and have a good sense of self-esteem. Students report having less anger in their relations with peers and teachers and consistently cite the "family atmosphere" at UCAP that has helped them succeed. UCAP graduates also report a reduction in drug use and a general trend toward self-discipline. Said one, "If I hadn't come to UCAP, I'd just be a bum in my house."

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In fall 1993, the Carnegie Foundation recognized UCAP as one of four Lead Schools in Rhode Island—schools that are considered exemplars of middle school teaching philosophies.

U.S. DEPARTMENT OF EDUCATION

ACADEMIC CHALLENGE AND ENRICHMENT LINK RURAL STUDENTS TO THE OUTSIDE WORLD

Tuba City High School
Tuba City, Arizona

Overview

Ofelia wakes up early at her home on the Navajo reservation in Arizona to catch a 7 a.m. school bus that will take her 50 miles to Tuba City High School. A student in Tuba City's Liberal Arts theme house, Ofelia is eager to turn in a paper for an interdisciplinary U.S. history and English course discussing Puritan traditions as revealed in The Scarlet Letter. *She proudly finished her paper at 9 p.m. the night before, just as the school's computer room was closing. Looking beyond high school, Ofelia is considering majoring in English in college.*

At Tuba City High School, teachers and district staff have been engaged in fundamental school restructuring for almost a decade. The process of change began in 1985 when the school founded Bio-prep, a school-within-a-school honors program that initially focused on intensive course preparation in science and math and grew to involve an extensive college-preparatory curriculum in all subjects. Hallmarks of Bio-prep were a rigorous curriculum, team teaching, extended-day activities, and enriched summer program options off the reservation. Most of these features still exist through a new, schoolwide restructuring effort that continues the process of change in Tuba City High School. In the fall of 1993, building on the successes and lessons learned from Bio-prep, Tuba City launched Next Century Warriors, which extends special opportunities to all students in the school.

School Context

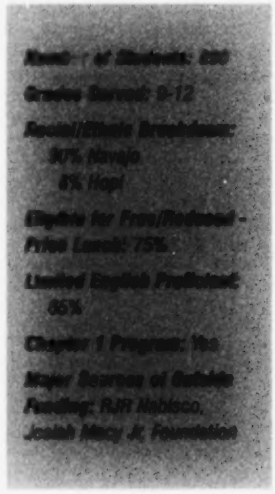
Located on Arizona's Navajo reservation, near the western border of the Hopi reservation, Tuba City High primarily enrolls Navajo and Hopi students from rural communities within a 54-mile radius of campus. All students in the school participate in the Next Century Warriors restructuring project.

Major Program Features

Until the advent of Bio-prep, Tuba City High had an academic record that reflected the damaging effects of rural isolation and high rates of poverty, teen pregnancy, unemployment, alcoholism; basic skills scores hovered three to five years below grade level at graduation for those who managed to stay in school. A group of Tuba City High School science teachers were especially concerned

Key Characteristics

- **Restructuring project creates schools-within--schools that integrate learning around a specific academic or ocupational focus**
- **Interdisciplinary courses provide opportunities for inquiry-based learning**
- **Extended time and summer options help rural community students connect with postsecondary educational opportunities**



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about the state of the school and its lack of college-bound graduates. With help from the Josiah Macy Foundation and Northern Arizona University, they created Bio-prep, a four-year, integrated high school honors program that prepared 150 students a year for postsecondary education. The program's goals were to offer enriched, advanced courses to average and above-average high school students who were willing to take on an academic challenge with the intention of pursuing higher education at a college or university. Macy Foundation support for Bio-prep continued until 1993.

The Bio-prep goals were extended to all students through the Next Century Warriors project in 1993. With $750,000 in funding from RJR Nabisco, a planning committee composed of the principal, district staff, and half of the school's faculty developed the following goals for the high school: (1) all students should develop and achieve to their highest potential; (2) by graduation students should be able to solve problems and make decisions; (3) students should be encouraged to pursue lifelong learning; and (4) the school's educational programs should contribute to the Native American community and society at large. According to one teacher who has participated in restructuring efforts over the past decade, "We're trying to keep the same expectations and support systems and high levels of success [for all students as there were in the Bio-Prep program]."

Students at Tuba City enroll in one of four "houses," each with its own discipline-specific theme: Math, Academics, Science, and Health (MASH), Technology and Engineering Career House (TECHs), Business, and Liberal Arts.

Academic Program

- **Theme houses.** Students at Tuba City enroll in one of four "houses," each with its own discipline-specific theme: Math, Academics, Science, and Health (MASH), Technology and Engineering Career House (TECHs), Business, and Liberal Arts. Students may take courses in any house—or even change houses entirely if their interests change—without losing credits or progress toward graduation. Each house has a team of teachers that remains with students until they graduate, a concept proven effective through the Bio-prep program. "It's important that kids develop a rapport with the faculty," explained the project director. Students take four core courses from their house team teachers and three courses from specialists (e.g., in art and physical education) who serve the entire school.

- **Innovative uses of class time include advising and mentoring.** On Wednesdays and Thursdays, Tuba City departs from its standard seven-period schedule to offer four 90-minute class periods. Students attend four of their classes on Wednesdays and three on Thursdays, as well as a fourth "advisory" session.

In this weekly meeting, students in a stable cohort of 10 to 15 meet with teachers to discuss school-related issues, interact with special guests, or solve problems. Advisory meetings are held daily every morning in small groups with all house members. Topics and activities for these sessions will include counseling, mentoring, checking grades, and building self-esteem. Teachers will mentor students during the advisory periods and throughout the school day; they will receive extensive training from a former school counselor who was actively involved in Bio-prep.

- **Interdisciplinary courses.** Bio-prep offered many courses in interdisciplinary blocks, a strategy that still continues under the Next Century Warriors project. For example, Bio-prep ninth graders were required to take English, a math-physics course, and biology, all which were taught by a team of teachers who built connections among the disciplines. In eleventh grade, an American Studies course combined U.S. history and English; while students studied the Puritans, they read *The Scarlet Letter*. "This gave the feeling of a common group of kids with a common group of teachers doing common things," the Bio-prep director explains. Today, any interested student at Tuba City may take these courses; some courses maintain an honors label and draw matriculating students who have participated in a junior high school spin-off of Bio-prep.

Extended Support Programs

For Native American youth, getting to and staying in college hinges on having a solid high school preparation, garnering support from family and community, and adjusting to non-Native American culture. By offering summer programs, extending hours of school support services, and building parent/community support, Tuba City High School offers supplemental programs that work toward these ends.

- **Summer options.** Because Tuba City is extremely isolated (Flagstaff, the nearest town, is 80 miles away), and because the high school serves primarily Native Americans, many students have few opportunities to interact with students from other cultures—a fact that project staff believe may partially account for the high attrition rate of the few Native Americans who pursue postsecondary education. School staff believe that off-campus summer experiences can combat the effects of isolation. "In order for Native American youth to do better in college, they have to experience living on a campus, in a dorm . . . so they're more comfortable with the dominant society," said the

For Native American youth, getting to and staying in college hinges on having a solid high school preparation, garnering support from family and community, and adjusting to non-Native American culture. By offering summer programs, extending hours of school support services, and building parent/community support, Tuba City High School offers supplemental programs that work toward these ends.

Bio-prep director, who planned a rigorous off-campus summer experience for Bio-prep students. Using funds from the Macy Foundation, staff from Bio-prep and the University of Arizona (UA) in Tucson developed a five-week, five-class summer program for 15 Bio-prep participants, held at UA. Participants studied Native American literature and creative writing for six hours each day and lived in UA dormitories. In addition, Bio-prep staff sought out, publicized, recruited for, and funded other summer opportunities, such as those offered by Arizona State University (ASU), eastern prep schools, other Southwestern universities, and even Oxford University in England.

Since Bio-prep has ended, students have had fewer chances to study off-campus, but a few students still participate in programs sponsored by ASU and UA. During the 1994 summer, with money from Next Century Warriors, Tuba City High offered five courses in math, physics, music, art, and creative writing to interested students. The school also offered a summer counseling and academic preparation session for incoming freshmen as well as field trips to San Diego and Los Angeles. The MASH house sponsors a geology "excavation" trip, which any student in the school may attend. District personnel recognize the importance of these summer programs and hope to increase participation in the future.

- **Extended hours of service.** Tuba City students are expected to work hard. To facilitate their learning, the school library is open from 7 to 9 p.m., Monday through Thursday. Under Bio-prep, math, physics, computer, and English labs—staffed by teachers—also remained open Monday through Thursday from 7 to 9 p.m. Macy Foundation money paid for the added staff time. Although the school no longer has money to pay teachers for extended hours, many teachers volunteer extra time. One physics teacher holds class from 1 to 3 p.m. every Sunday; students know not to sign up for the class unless they can meet his demanding schedule. Transportation to and from these extended-day events is left to the student. Many students live in the high desert without electricity or running water, and their cultural lives center on tribal rather than academic involvement. Extending the availability of school resources enables them to strengthen academic competencies.

Support for Implementation

About 50 percent of the school's 85 staff members are Native American, more than usual for schools serving Native Americans.

According to 1992 Bureau of Indian Affairs (BIA) data, the average school serving Native Americans has 22 percent Native American faculty members. Staff stability is a major concern in most reservation schools; in 1990, the BIA reported that staff turnover averaged 30 percent in BIA schools, due mainly to the extreme isolation on reservations. However, the staff at Tuba City High is stable despite frequent changes in principal leadership over the past decade.

Leadership at Tuba City is not concentrated in the principal; instead, a long-standing and stable team of dedicated school and district staff has been instrumental in bringing about the school's decade of innovations. District and school staff alike praise the work and leadership of the former Bio-prep director, who could "get teachers together, help them like and respect each other, and get them to believe they have something special to offer." Through this stability, teachers have come to know the families who send their children to Tuba City High—a fact that has resulted in increased communication, better understanding, and stronger school/community ties. Teachers remain dedicated to helping students succeed at all costs, even when it means sacrificing personal time to keep open a lab or teach supplemental lessons during a weekend or after school. Says one teacher about his personal commitment to the school and volunteering extra hours without pay, "I feel it's normal."

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Evidence of Success

Bio-prep students in the honors program made significant gains on state and national standardized test scores, increased their college attendance rates, and were accepted into some of the most prestigious colleges in the country (six are currently studying at MIT). Many students receive college scholarships. Graduates of the 1993 class earned five Manuelito scholarships from the Navajo tribe for outstanding academic performance—a record among the surrounding schools for the most scholarships received in one year.

As a whole, Tuba City students in the twelfth grade performed better than average on the Arizona Student Assessment Program (ASAP): In 1993, for example, reading and writing mean scores exceeded both the county and state averages (10.5 versus the state's 9.2 and 5.2 versus 5.1, respectively). Scores in math were below average (5.1 versus the state's average of 5.6). Tuba City High students consistently outperformed similar populations on ASAP writing and math tests, however, and were competitive in reading. On the Iowa Test of Basic Skills (ITBS), eleventh-grade students perform at levels superior to students in similarly situated districts in

the state but below the average for the country. In 1992, eleventh graders scored an average of 31 in reading (versus the nation's average score of 52), 43 in language (versus 48), and 43 in math (versus 50). The district reports that ITBS scores have risen slightly over recent years.

The jury is still out on the success of Next Century Warriors. One encouraging sign is rising NCE gains: In 1993-94, reading scores went up 8.6 points and math scores increased 7.7 points from the previous school year. Another indication of nonacademic success is that pregnancy rates among Tuba City High School girls have dropped among first-year students and are low for the general student population; at one time, Tuba City High School had one of the highest teen pregnancy rates in the country. The district attributes this success to school support groups and an AIDS prevention program. Support groups are also credited for keeping substance abuse low among Tuba City students. Says one teacher who has experienced a decade of change at Tuba City High: "We're interested and motivated, and I think that's reflected on the students—that we expect a lot from them."

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CAREER ACADEMIES INTEGRATING ACADEMIC AND APPLIED LEARNING

Socorro High School for the Health Professions
Socorro, Texas

Overview

Ana Rodriguez has just finished a morning of classes typical for a college-bound high school junior—chemistry, English, U.S. history, and geometry. After a quick lunch she will board a school bus bound for the El Paso Community Health Center, where she has been shadowing a pediatric nurse on his rounds. Seven months into the school year, Ana has completed eight of ten scheduled rotations in hospitals and health services agencies throughout El Paso; she likes working with children and has decided to pursue pediatrics for her year-long clinical placement during her senior year.

At Socorro High School for the Health Professions, the career academy model offers students like Ana an integrated academic and health-related curriculum and the work-based learning that will prepare them for high-skilled jobs in the health professions. Academic excellence, community service, and hands-on work experience help students develop positive attitudes about school as they plan and prepare for future careers.

School/Program Context

The Socorro High School for the Health Professions is a school-within-a-school located in metropolitan El Paso's Socorro High School. Every year it admits about 50 ninth graders interested in the health professions. Sixty-four percent of Socorro students have mothers who did not graduate from high school or complete an equivalency degree, and many students are first-generation U.S. citizens. Ninety-eight percent of Socorro students are bilingual; about 15 percent have limited English proficiency.

Students must earn a minimum high school GPA of 2.0 to continue in the program; students falling below that level must pass failed courses before they can re-enter.

Major Program Features

The Socorro High School for the Health Professions introduces students to more than 300 health care careers and their academic prerequisites. The program's goals are to: (1) introduce students to health careers via role models, speakers, and practical experience; (2) develop students' academic skills through early identification and remediation of academic deficits, integration of the core cur-

Key Characteristics

- Career academy integrates academic and applied learning
- Clinical rotations expose students to a variety of professions
- Internships provide technical training

Number of Students: 225
Grades Served: 9-12
Racial/Ethnic Breakdown: 98% Mexican American
Eligible for Free/Reduced-Price Lunch: 78%
Chapter 1 Program: Yes (Schoolwide in 1994-95)
Major Sources of Outside Funding: Chapter 1, Carl Perkins, JTPA

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riculum with a health care focus, peer tutoring, preparation for standardized tests, and honors courses; and (3) develop students' skills for career entry and certification as nursing assistants, dental assistants, medical laboratory assistants, unit coordinators, medical transcribers, EKG technicians, phlebotomists, and home health aides.

Academic Program

- **Courses.** Socorro combines a traditional college-preparatory course of study with applied health occupations classes. The ninth-grade program includes a double period of math (pre-algebra and Algebra I) and an introductory health occupations course. Tenth-grade students take a foreign language and a two-period, pre-employment health occupations lab in addition to their other courses. Eleventh graders take a third year of math and science and begin their field experience in a series of clinical rotations. While reserving two to three periods for health occupations cooperative placements, seniors continue their academic coursework and take English, social studies, and (if they choose) math and science.

  A team of eight teachers, including two health occupations teachers, meets weekly to integrate academic and occupational instruction, address individual student needs, and plan academy events. Occupation-related assignments for students include writing biographical sketches of medical pioneers in English class, developing a health care reform agenda in social studies, and solving math word problems using medical applications (e.g., temperature conversions in the human body, drug dosage conversions, and intravenous solution dilution problems.

Socorro combines a traditional college-preparatory course of study with applied health occupations classes.

- **Team clusters.** Academy students are grouped in teams that remain together for all four years of the program. Students take all their classes with their assigned teams, including English, math, social studies, science, and health occupations. Teachers stay with the same group of students throughout the program; in this way, students and teachers develop closer relationships than would be possible in a traditional high school.

School-to-Work Transition

- **Clinical rotations.** In their junior year, academy students spend half of each school day in clinical rotations. These are unpaid assignments that enable students to explore a range of health occupations and prepare them to enter the co-op program in their senior year. Students rotate through 12 three-

week assignments in health services administration, direct care, support services, rehabilitation, diagnostic/therapeutic services, volunteer services, the city/county health department, and two electives. Clinical rotations also include one three-week block in which students visit local community and four-year colleges to learn about postsecondary health-related education. Socorro offers students a range of choices for each clinical rotation. Under direct care, for example, students may shadow nurses in pediatrics, surgery, internal medicine, intensive care, or oncology. Socorro places students in area hospitals, public health clinics, doctors' offices, and community health agencies. Students' on-site activities are primarily job shadowing and observation; students formalize their learning by completing study assignments, task sheets, and clinical observation sheets. The district provides transportation from the school to clinical placements so that all students can participate.

- **Internships.** In their senior year, students fill out job applications and undergo interviews for year-long internships. Past internships have been career-entry jobs in nursing services, physical therapy and EKG facilities, medical laboratories, medical clinics, dental offices, nursing homes, school nurse offices, occupational therapy departments, and nursing education offices. Student interns work between 15 and 20 hours per week (three to four hours every afternoon) and attend a one-period health occupation class every day. Department supervisors and other medical professionals monitor student progress toward learning the essential elements of the job, as specified in individual training plans signed by the supervisor, student, parent, and high school internship coordinator. Clinical supervisors complete student performance evaluations every six weeks.

- **Cooperative placements.** Typically, students in cooperative placements who have earned a positive evaluation from their clinical supervisors and completed their first 12 weeks on the job become regular employees and are paid part-time salaries directly by the facility. Although the training period technically ends with the school year, outstanding students continue after training ends. For students who are interested in pursuing their education beyond high school but may not qualify for full scholarships, these jobs provide money for college tuition.

Department supervisors and other medical professionals monitor student progress toward learning the essential elements of the job, as specified in individual training plans signed by the supervisor, student, parent, and high school internship coordinator.

Postsecondary Education

The academy program serves as a bridge to postsecondary education for students interested in furthering their formal educations.

The health occupations coordinators attribute much of the academy's success in this area to strong counseling and mentoring. For example, eleventh graders taking clinical rotations spend one week observing college classes to gain exposure to the higher education system. The students then walk through the application process and fill out scholarship forms. Socorro staff serve as advisors to students planning for further education.

Under articulation agreements approved by the state, the Nursing and Allied Health Programs Department of El Paso Community College can grant up to eight credits for health occupations courses completed at Socorro High School.

Professional Affiliations

Ninety percent of Socorro Academy for the Health Professions' students participate actively in the school chapter of the Health Occupations Students of America (HOSA) and in its local, state, and national competitions. HOSA activities build unity among health occupations students and reinforce their classroom experiences by bringing them into contact with other students who have similar aspirations and by expanding their knowledge of health professions. In addition, the teachers receive information and support through their involvement in this national network of health occupation educators. Activities have involved students in public speaking, demonstrating their CPR skills, and responding to mock trauma cases. In addition to HOSA, the academy's Association of Students and Parent/Professionals (ASAP) serves as a forum for area health care professionals, students, teachers, and parents to share their experiences and ideas.

The academy program serves as a bridge to post-secondary education for students interested in furthering their formal educations. The health occupations coordinators attribute much of the academy's success in this area to strong counseling and mentoring.

Support for Implementation

Socorro's network of extended relationships with local businesses, community colleges, and four-year colleges enables the program to make cooperative placements. Many of these partnerships were facilitated by the school's successful overtures to the El Paso Hospital Council, a coalition of CEOs from all the major health care facilities in the city. Working through the council, Socorro staff "sell the program from the top down" and win commitments for support through on-the-job assignments and on-site mentoring.

The program used a portion of the district's JTPA funds to cover start-up costs. Ongoing operational costs for the academy exceed the cost of the regular academic program by about $50 to $100 per student per year. The additional monies are spent on equipment, supplies, and program development, although teachers do much of

the development work during conference periods or on their own time.

Evidence of Success

Socorro became a school-within-a-school in 1991-92. Scores on the Texas Assessment of Academic Study (TAAS) for sophomores (first-time testers) at Socorro High School as a whole indicate substantial increases in reading, writing, and math achievement. In 1992-93, reading scores increased about 20 points from the previous year, with 55 percent of students passing. In 1993-94, the number of sophomores passing the TAAS reading test further increased to 62 percent of students passing. Writing scores increased from 50 percent to 75 percent passing between 1991-92 and 1992-93, and this gain was sustained in 1993-94. Math scores increased to 49 percent passing in 1992-93 and to 62 percent in 1993-94—the highest math scores for first-time tested students in the city.

The first student cohort to complete the four-year health academy program will graduate in 1996. Preliminary outcome data (based on students who entered the program as sophomores and juniors) are promising. According to the Socorro health occupations coordinator, 95 percent of academy graduates are either: (1) enrolled as full-time students in postsecondary programs in health careers, (2) continuing in their cooperative jobs and attending postsecondary institutions on a part-time basis, or (3) working full-time in training-related cooperative jobs.

TECH PREP AND YOUTH APPRENTICESHIP COURSES STUDENTS APPLY KNOWLEDGE IN WORKPLACE SITUATIONS

Liberty High School
Liberty, South Carolina

Key Characteristics

- Tech Prep courses link learning to future careers
- Apprenticeships prepare qualified Tech Prep students for highly skilled jobs
- School- and district-sponsored courses complement work-oriented curriculum

Number of Students: 550
Grades Served: 9-12
Racial/Ethnic Breakdown:
82% White
8% African American
Eligible for Free/Reduced-Price Lunch: 20%
Limited English Proficient: None
Chapter 1 Program: No
Major Sources of Outside Funding: Carl Perkins

Overview

Before Dan took Tech Prep courses at Liberty High School, he was disengaged in school and rarely spoke out in class. When Liberty adopted a rigorous Tech Prep program that included him in activities simulating the workplace, Dan found school more relevant and became motivated to do well. He learned how to write a resume and prepare for a job interview; in time, he grew comfortable with working in groups and making oral presentations. A few weeks after high school graduation, Dan was hired by a local textile plant to maintain industrial equipment and do electrical work.

Liberty High School has eliminated its general track courses and replaced them with a Tech Prep program that provides students like Dan with integrated academic and vocational courses, prepares them for meaningful employment, and encourages them to pursue postsecondary education.

School Context

Liberty is one of four high schools in the rural Pickens County School District. About 100 Liberty students take vocational courses that follow a Tech Prep model at the district's career center. Each year, 15 to 20 seniors with good grades and attendance participate in the four-year youth apprenticeship program with students from the three other county high schools. Participants apprentice at local businesses while working toward an associate degree at an area technical college. In 1994-95, about 45 students will participate in the program.

Major Program Features

In 1985, the president of Tri-County Technical College convened local school district administrators, business leaders, and technical college faculty to discuss education reform and the adequacy of student preparation for high-skilled employment or postsecondary education. School administrators pointed out that many students saw little relevance in their courses; business leaders observed that graduates of area high schools were usually not qualified for entry-level positions; and technical college faculty affirmed that graduates were poorly prepared for advanced study.

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The group agreed that the general track courses in area high schools should be replaced with courses relevant to real-world experiences that would prepare students for employment and further education. In 1987, these leaders established the Partnership for Academic and Career Education (PACE) to help implement Tech Prep and youth apprenticeship programs. PACE staff support Liberty and other high schools in the tri-county area. By 1990, Liberty had eliminated all of its general track curriculum courses and replaced them with Tech Prep.

Tech Prep Courses

- **School-based courses.** Liberty offers Tech Prep courses in English, math, biology, chemistry, and physics. In these courses, students apply their knowledge and skills in situations that simulate the workplace. According to the principal, students are more motivated to learn because they see more relevance in their courses. College prep students are also encouraged to take these courses in addition to regular college preparatory curriculum.

  The English courses—Communications for the Workplace I and II—are open to juniors and seniors, respectively. They are designed to help students develop the communication skills necessary for gaining employment and functioning effectively in the workplace. Students write resumes, conduct mock job interviews, make oral presentations, and work in groups to devise solutions to workplace problems. They are assessed through written essays and tests, interviews, oral presentations, and group projects.

  Tech Prep mathematics courses—Mathematics for the Technologies I and II—are open to students who have completed pre-Algebra or higher-level math courses. Students develop problem-solving skills that they will use in the workplace by measuring dimensions and rates at which objects move; calculating ratios and percents; creating scale drawings that represent rooms or buildings; and developing and using graphs, tables, and charts. In one class, for example, a few students measured the weight and height of every student in the class and reported this information on graphs and in tables. In another class, students were divided into groups and each group made a scale drawing of a different floor of the school.

  Applied Biology I and Physics for Technologies are open to students who have taken physical science. Students study the role of biology and physics in industry and the community and

The group agreed that the general track courses in area high schools should be replaced with courses relevant to real-world experiences that would prepare students for employment and further education.

apply their knowledge in classroom activities. For example, in one class students studying bacteria used their knowledge about parasites to determine the source of a hypothetical outbreak of food poisoning.

- **Modified schedule.** The school introduced 90-minute class periods and the Tech Prep courses simultaneously. When the school had general track courses, teachers usually lectured during 45-minute class periods; with Tech Prep, longer blocks of time allow teachers to use various instructional approaches.

- **Career center courses.** The district's career center offers vocational courses to students in grades 10-12. Sophomores may choose among 12 one-year introductory courses, while juniors and seniors may take two-year courses. Like the Tech Prep courses at Liberty, the vocational courses require students to apply their knowledge and skills. Courses are offered in the following areas: agricultural mechanics, automobile technology, business management, carpentry, electronics, cosmetology, drafting, culinary arts, graphic communications, health occupations, horticulture, industrial electricity, machine technology, masonry, fashion and garment design, and welding.

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During their senior year, students work as apprentices for 20 hours a week at a local business. After graduating from high school, they continue working for the same business for two years while studying for an associate's degree at a technical college in the area.

Youth Apprenticeship Program

The three-year youth apprenticeship program is designed for advanced vocational students from Liberty and other area high schools. Apprenticeships are available in computer electronics, business management, auto mechanics, and industrial electricity. Students qualify for the apprenticeship program during their junior year, and apply for apprenticeships that spring. During their senior year, students continue to take classes at their own high school and at the career center; they also work as apprentices for 20 hours a week at a local business. After graduating from high school, they continue working for the same business for two years while studying for an associate's degree at a technical college in the area. On average, students in the program earn $6 per hour.

Sixteen area businesses provided apprenticeships during the 1993-94 school year, including AT&T Global Communications, Blue Ridge Electric Cooperative, Compu-Software Innovations, Cornell Dubilier, Mayfair Mills, Ryobi Motor Products Corporation, Sealevel Systems, Inc., three car dealerships, and the Pickens County School District. At Cornell Dubilier—a manufacturing plant that provides an apprenticeship in business management—the student's initial responsibilities included bookkeeping and secretari-

al work; eventually she will become an administrative assistant, a mid-level technology position. Sealevel Systems Inc. provided an apprenticeship to a student who has studied electronics. He started as a technical assistant and is learning to assemble and repair computers. He will eventually become an electronic technician—also a mid-level technology position.

Vocational teachers, technical college faculty, and employers have developed workplace competencies for the four occupational fields in which apprenticeships are available. These competencies help teachers and employers devise activities at the career center, technical college, and workplace. In computer electronics, for example, the teacher at the career center and the chairman of engineering technology at Tri-County Technical College developed competencies in problem solving, reading, mathematics, communications, and teamwork. The electronics teacher helps students develop skills in these areas while employers provide opportunities for students to use them.

Support for Implementation

Partnership for Academic and Career Education

Teachers at Liberty and other area high schools received Tech Prep implementation support from the Partnership for Academic and Career Education (PACE), a business and education consortium involving the seven school districts of the tri-county region, local businesses and industries, two local business and education partnerships, the Tri-County Technical College, Clemson University's College of Education and National Dropout Prevention Center, and the Career and Technology Center. PACE provides staff development opportunities, helps develop curriculum units, and furnishes materials to Liberty and the other area high schools. PACE staff also coordinate networking meetings for Tech Prep teachers several times a year.

PACE staff provided numerous in-service training opportunities on active learning strategies, which assisted Liberty High School personnel to take advantage of a new block scheduling pattern containing 90-minute class periods. PACE staff also assisted district and school curriculum coordinators and teachers to adapt 15 curriculum units for applied English to better meet local needs. The units, developed by the Agency for Instructional Technology (AIT), are designed to teach a particular communication skill and include such topics as group participation, communication with clients and customers, and discussion to solve interpersonal conflict.

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Other Training Experiences

Before teaching Tech Prep courses, teachers at Liberty and other area high schools take a three-credit course to learn innovative teaching techniques and to see first hand the education that is needed for future employees. The course is offered through PACE and is taught by Tri-County Technical College faculty and experienced Tech Prep teachers. Occasionally, local businesses hire Liberty teachers in curriculum-related summer internship programs that provide work experiences to help them teach Tech Prep courses.

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Evidence of Success

In 1991, PACE received the first U.S. Department of Education Award for Tech Prep Program Excellence and one of three national awards given by the American Association of Community Colleges. In 1992, Jobs for the Future, a national organization, chose the Pickens County Youth Apprenticeship Initiative as one of seven exemplary programs nationwide to become part of its National Youth Apprenticeship Initiative. In 1993, PACE received one of nine U.S. Department of Education demonstration grants for model Tech Prep programs.

Liberty's principal maintains that students in the Tech Prep/youth apprenticeship programs see better the relevance of their coursework for future employment and education. He points to an increased enrollment at local technical colleges and general student enthusiasm as evidence of the program's success. One teacher noted that Tech Prep courses are becoming more popular as teachers and students recognize their ability to relate education to future learning—both in and out of the workplace. Finally, teaching methods being used in Tech Prep are being adopted for all courses.

FLEXIBLE SCHEDULING AND ACADEMIC CHALLENGE ENTICE DROPOUTS TO RETURN TO SCHOOL

Middle College High School
Seattle, Washington

Overview

When Susan first came to Seattle's Middle College High School (MCHS), she had dropped out of school six months before. She had no interest in returning to her old high school and faced few prospects for employment. One day, Susan decided to respond to a recruiting telephone call from a teacher at MCHS, who said the school could offer her something different. Today, Susan is a junior at a local university and has received several scholarships for her fine academic performance. She credits her success to MCHS.

Housed on the campus of the Seattle Central Community College, MCHS provides students with flexible scheduling and challenging courses in an alternative setting that encourages students to finish high school and move on to college.

Key Characteristics

- **College-preparatory focus challenges extremely hard-to-reach students**
- **Flexible scheduling accommodates students with jobs, students who need only certain courses to graduate, or students who need extra time**
- **Community outreach efforts bring mentors and visiting teachers to the classroom**

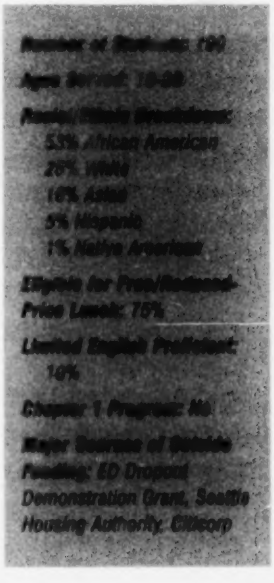
School Context

Opened in 1990, MCHS targets students who have dropped out of school or are seriously at risk of dropping out. A large number of MCHS students enter the program only a term or two from graduation. Many students come from troubled backgrounds: some are teen parents, others have been abused and are themselves substance abusers, 10 percent have been involved with the courts, and some—staff estimate about 90 percent—are either homeless or don't have a regular place to live. Students may have been out of school for several years before coming to MCHS. The school accepts about 100 new students each year—more than half the entire enrollment—to replace those who have graduated or left the program for personal or financial reasons. Many students who leave the program before graduation later return to finish.

The MCHS principal reports both to the school district and to Seattle Central Community College, which provides free portable classrooms for the school and allows students to take college courses for credit.

Major Program Features

In 1989, the Seattle School District's deputy superintendent and curriculum director brought together representatives from public schools, universities, businesses, and community colleges to come



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Some community members participate by teaching Middle College courses. For example, 11 doctors from a cancer research institute recently taught a math/science course in conjunction with MCHS staff for one quarter.

up with ways to address Seattle's 20 percent dropout rate. The group devised a plan to establish Middle College High School, which is modeled after LaGuardia Middle College High School in New York City.

Academic Program

- **Courses.** MCHS follows the Seattle Central Community College schedule, with four quarters—including an optional summer term—during the calendar year. The flexible schedule at MCHS accommodates individual needs: A number of students take one course and then go to work, and others may take only the few specific classes they need to graduate. The 11 certified teachers offer required math/science and language arts/history classes in the morning and an array of electives in the afternoon, which have included career education, desktop publishing, video production, student government, writing computer lab, health, mentoring, driver education, AIDS education, peer education, and others. Students have input into what electives will be offered each year. A small number of students work with teachers on independent studies.

Some community members participate by teaching Middle College courses. For example, 11 doctors from a cancer research institute recently taught a math/science course in conjunction with MCHS staff for one quarter. The doctors focused on blood chemistry, blood cancer, and genetics, and provided examples of laboratory work. They collaborated with MCHS teachers to integrate their lessons into the school's regular curriculum. The next quarter, the doctors' students tutored elementary school students in math and science. They also taught a course for younger students based on what they had learned from the doctors.

Middle College High students may also enroll in courses at Seattle Central Community College; courses include English, history, math, English as a second language, African psychology, Tai Chi, and cosmetology. College credits can be applied simultaneously toward college and high school degrees. One Middle College High School student will soon receive her associate's degree in culinary arts while still in high school.

- **Classroom strategies.** Many classes, including the language arts/history and math/science courses required of all students, are team taught and interdisciplinary. For instance, one humanities/history class focuses on the history and culture of Asia, Africa, and South America, and helps students see how

disciplines relate to each other and to the real world. Each quarter, teachers in every department have two days of joint planning time during which they integrate subjects. Teachers are responsible for researching curriculum development in their own subject area. Each pair then plans instruction for the two-hour integrated blocks, including developing curriculum and materials. No MCHS teacher uses textbooks. For example, in humanities a group might study the Civil War and Reconstruction. Students explore the political, historical, and economic aspects of abolition and slavery, and then read speeches and a novel from the period. As an evaluation, students are asked to incorporate all the concepts into an analysis of the novel.

MCHS students vary widely in their academic skills; classes are heterogeneous and teachers employ cooperative learning strategies for instruction. Each class also has one or two of the more than 15 adult tutors employed by MCHS. These tutors often come from the community college's tutoring program, and they work with groups and individual students. Class sizes range from 25 for a class taught by one teacher to 50 for a team-taught class, but classes rarely exceed 40 students. The presence of two teachers and the tutors allows for more individualized instruction.

- **Internships.** About one-fifth of Middle College students elect to participate in a career education internship program. After a classroom-based orientation that emphasizes goal setting, personal assessment, job-hunting skills, grooming, resume writing, and work habits, students interview for and are placed in nine-week, 16-hour-per-week internships at businesses, law firms, hospitals, and government agencies in Seattle. Internship placements are based on student interests and often extend into future, related activities. For example, one student who wants to be a doctor interned at a local medical center; he was later offered a scholarship to nursing school. Another student interested in interior design interned at a furniture store. Rather than simply observing the workplace, Middle College High School interns have actual assignments and job responsibilities. For example, a student who interned at the local police department assisted with criminal justice procedures by taking mugshots and doing fingerprinting.

- **Mentors.** About 20 mentors recruited from local businesses, colleges, and community groups work with MCHS students one-to-one to address specific problems, provide tutoring, and

Middle College High students may also enroll in courses at Seattle Central Community College; college credits can be applied simultaneously toward college and high school degrees.

serve as role models. Mentors and students meet at least twice a month and have contact at least once a week. Mentors also encourage students to pursue higher education. MCHS students receive school credit for participation in the program.

Support for Implementation

Middle College High has several special features that support its program. First, the school's small size creates a family atmosphere and gives staff members more time to discuss problems and solutions. Second, the community supports the school by providing computer assistance, student scholarships, internships, mentors, and classroom tutors. Third, outside funding, especially from federal sources, is extensive. The school's 1993-94 budget included a $622,000 federal Dropout Demonstration Project grant and $609,000 in district funding. Finally, Middle College High School receives a great deal of flexibility and autonomy—particularly in scheduling—from the school district to which it reports. Teachers report that MCHS has experienced some pressure to conform to more traditional practices. Staff note that alternative programs such as theirs need a great deal of flexibility, particularly in the area of scheduling, to meet students' special needs successfully.

Evidence of Success

Middle College High School's graduation rate is high for the population it serves: in 1993-94, nearly 60 students graduated. One hundred ninety-four students have graduated from MCHS in its first four years. Seventy-five percent of the graduates have continued on to postsecondary education, mainly at SCCC, the University of Washington, and vocational programs. In 1993, 24 graduates received college scholarships ranging from $1,000 to $5,000. Some students have earned as many as 27 to 37 college credits while at MCHS.

To gauge MCHS's success, the assistant principal notes that it is important to look beyond numbers to personal stories. One student, who entered the program after being indicted for attempted murder, ended up finishing the program with a 3.7 GPA. He is currently a junior at a local university, where he has earned numerous scholarships. Much of his success is credited to MCHS's influence. Other examples include several female students, former drug addicts and drug sellers and unmarried teenage mothers, who now attend college.

About 20 mentors recruited from local businesses, colleges, and community groups work with MCHS students one-to-one to address specific problems, provide tutoring, and serve as role models.

INDIVIDUALIZED INSTRUCTION AND COMMUNITY INVOLVEMENT ENGAGE DROPOUTS IN LEARNING

City Academy
St. Paul, Minnesota

Overview

Two years ago, Keshon—a high school dropout—could be found wandering his neighborhood streets. Today, he attends classes five days a week and volunteers for Habitat for Humanity; when he graduates, Keshon plans to attend the local junior college. Keshon attends City Academy, a year-round charter school in St. Paul, Minnesota.

City Academy provides individualized learning in an alternative setting for young adults seriously at risk of dropping out of school. The school's small size—just 40 students—allows staff to provide the personal attention and flexibility students need to stay enrolled and succeed in school. City Academy offers students many opportunities to learn in the community through partnerships with area businesses and organizations.

School Context

According to the 1990 census, 40 percent of the teenagers in the economically depressed neighborhood surrounding City Academy drop out of school each year. Most are unemployed. Many City Academy students are represented in these statistics—they are former dropouts or were expelled from their old high schools. The academy targets alienated students who often fail to finish school—those who are teen parents, substance abusers, or victims of physical abuse. Most students learn of City Academy through word-of-mouth; others are referred from local schools.

Major Program Features

City Academy grew out of two teachers' experiences with alternative programs in St. Paul. Although these programs targeted at-risk students, the teachers believed that some of the students most in need of such specialized programs fell through the cracks for two reasons: (1) Because of their demand and exposure, *most* specialized programs grew rapidly in size and, consequently, participants received less individualized attention; and (2) the layers of school, political, and board bureaucracy slowed or hampered teachers' flexibility to provide needed services.

Key Characteristics

- **Small, personalized environment increases teacher involvement with students**
- **Individualized instruction allows students to work at their own pace**
- **Service learning builds bridges between students and their communities**

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With $30,000 in start-up funding from Northern States Power Company, City Academy opened in 1992 as Minnesota's first charter school. The academy's primary goal is to address students' academic needs and keep them in school through graduation; however, school staff also address students' social and emotional concerns.

To ensure individualized attention and to curb rapid growth without additional support, the school limits enrollment to 40 students who are chosen by lottery. City Academy employs four full-time, certified teachers in health/physical education, English/social studies, math, and science. In addition, two faculty members from local colleges work part-time at the school, teaching English, college writing, and art.

Academic Program

- **Individualized instruction.** Curriculum and instruction at City Academy are built around the abilities, needs, and goals of individual students, incorporating state guidelines. Teachers design activities tailored to students' level and pace within classes of five or six students.

  Teachers have developed progress checklists to help students and teachers mutually assess student progress. When students enter City Academy, staff use standardized tests (the Test of Adult Basic Education or the Woodcock Johnson) to assess their ability level and determine areas of need. Based on test results, students and teachers design five-week academic plans. This student involvement is key to the program; it gives students an active voice in the development of the curriculum and sets the tone for the academic environment.

  Because some students may want a break between tough academic cycles, the school periodically allows them to interrupt their intense academic plans with less rigorous courses—rather than risk their dropping out because of short-term fatigue. For example, a student may study algebra for two five-week cycles and then take a weight-lifting class for five weeks (in addition to other courses). Because instruction is completely individualized, students can resume where they left off.

- **Assessment.** In consultation with business and university partners, academy staff set a minimum competency level of 80 percent mastery in a given subject area (rather than Carnegie units or course credits) that students must achieve to advance and to graduate. Subject-area competency is based on self-reporting, teacher reports, testing, classwork, and other measures. Most

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The school's small size—just 40 students—allows staff to provide the personal attention and flexibility students need to stay enrolled and succeed in school.

students have had no trouble achieving the minimum standard; many work to exceed it.

Rather than tracking students, teachers devise student work plans incorporating activities based on individual ability levels. For example, in a social studies class on prehistoric Minnesota, the teacher leads all students in a general discussion about the topic and brainstorms with them about possible areas for further required research. A higher-ability student might write a formal research paper, and a student operating at a less skilled level might write a simple report incorporating general concepts. Evaluation of student work is based on the individual, progress checklists, and initial and continuing assessment; grading is not done by comparison.

- **Integrated curriculum.** Teachers integrate learning across disciplines as much as possible. Activities require students to read, write, make personal connections with the subject, and apply their knowledge to current situations. For example, students in a social studies class learning about cultural clashes between Native Americans and European settlers in the last century might discuss the war in Rwanda. In art class, math skills may be woven into a study of architecture.

  All students must take a daily communications class, which varies from 30 minutes to one hour long based on student need. In this class, five to eight students work on interpersonal communication skills and problem solving with a student-selected faculty member. The class time is considered confidential, so students may discuss personal problems. A student or group of students may request that the entire school meet as a group to address issues of concern or interest. Sometimes the time is combined with other required classes such as a required spelling class, to fulfill an outcome objective for all students.

  For students who seem ready for college-level work, the academy uses some of its state per-pupil allocation to pay for courses at a local college.

- **Program structure.** City Academy operates year-round; students attend approximately 215 days of school each year. During the fall and spring semesters, students attend school from 8 a.m. to 2:30 p.m. every weekday but Tuesday, taking seven classes a day. Classes run in five-week rather than ten-week cycles to provide students with more frequent feedback on their progress.

Teachers integrate learning across disciplines as much as possible. Activities require students to read, write, make personal connections with the subject, and apply their knowledge to current situations.

Teachers added a two-hour afternoon program three days a week for students who are not succeeding in the City Academy program and for students who have dropped out of school and are considering City Academy. Teachers take turns teaching a class in their subject from 2 to 4 p.m. Students in this program may attend an English class on Monday, a history class on Tuesday, and a science class on Wednesday. Students admitted to the academy who are apprehensive about committing to the program may work their way into the regular day program through these afternoon sessions.

During the summer, classes meet in seminar form without breaks from 8:30 a.m. to about noon. Students usually study one subject every day, although some subjects may be combined (e.g., music and a short science class). The long summer schedule allows for flexibility in activities; for example, the writing class might focus on research and spend part of the morning on the school's computers and part in the public library, while the fitness class plays a round of golf and the art class paints indoor and outdoor murals.

Integrating Academics, Community Service, and Career Education

Although the students at the academy are often adept at acquiring academic skills and knowledge, life skills—such as attendance, problem solving, and being on time—can be harder to master and can lead to their dropping out of school. Staff enhance students' life skills by integrating community and service learning into instruction whenever possible. Once a week, the school schedule allows time for off-campus activities at community service projects, the public library, or other local institutions. A traveling history course takes students to important historical sites in the region, such as Indian Mounds Park and Mankato; students read books such as *Black Elk Speaks*. Opportunities like these expand students' learning experiences and help them build academic, personal, and social skills simultaneously.

Staff enhance students' life skills by integrating community and service learning into instruction whenever possible. Once a week, the school schedule allows time for off-campus activities at community service projects, the public library, or other local institutions.

All students are involved in community service in some way to help them gain skills and confidence. Ten to 15 students work at a job of some kind, up from just four when the program began. One student is developing a pilot program with the Eastside Neighborhood Development Corporation. She will be responsible for maintaining several abandoned and low-income properties, developing a job list, and writing a proposal to a local nursery to provide the landscaping materials for the properties. While learning such skills as supervising a coworker and creating tasks for completion, the

student also receives money for college as well as valuable academic and work experience. Another student developed and implemented a neighborhood childcare program through the parks and recreation department. Costs of such projects, including students' salaries, are supported by the school through grants from independent sources. The academy also has a federal grant for career education and training that funds 24 summer jobs for students.

All students volunteer with Habitat for Humanity for at least one five-week period before graduating from City Academy. In addition, some students join a local senior-citizens group on Tuesdays, weekends, and vacations to work with Habitat for Humanity on many aspects of housing construction: building houses, pouring footing, demolishing structures, and salvaging materials. Through the department of parks and recreation, with which City Academy shares a building, some students lead activities at recreation centers, serve lunch to senior citizens, and help maintain the parks facility. Some students painted a mural for the local police department.

Support for Implementation

Professional development for City Academy staff focuses on defining outcomes and ability levels for student learning. In 1993, the entire staff attended seminars on evaluation and assessment at Alverno College in Milwaukee; in 1995, Alverno's four-day summer conference will become a regular part of the teachers' professional development. The school also is applying for grants to collaborate with a local college on inservice training and to certify part-time staff.

Minnesota treats charter schools as independent school districts, governed by a school-selected board that includes all staff members. This structure eliminates the administrative layers of a regular school district, giving City Academy more decision making capacity. City Academy receives the same per-pupil funding from the state that other public schools receive ($3,050 in 1993-94). City Academy receives no local funding, but does get financial support from the Northern States Power Company and in-kind support from the recreation center in which it is housed.

Evidence of Success

Seventeen students graduated from City Academy in 1993. Of those 17, 15 enrolled in postsecondary education. More than half—perhaps most—of the students who enter City Academy eventually leave with a high school diploma.

Academy students tend to have high truancy rates before attending the school, but absenteeism has declined at the academy. At least 95 percent of students have improved their attendance rates. Students exhibit less self-destructive behavior after attending, and they often acquire and maintain jobs. Reading, writing, and math scores also show improvement.

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LEARNING BEYOND THE TRADITIONAL SCHOOL SETTING
BRINGING STUDENTS FROM THE MARGIN TO THE MAINSTREAM

City-As-School High School
New York, New York

Overview

At his former high school, Estefan was usually bored. He had earned a reputation as a mediocre student, his attention wandering regularly in class. But at City-As-School High School in New York, Estefan's attention never flags as he works as an assistant pastry chef in one of many internships available through the school's network of more than 1,000 community learning resources throughout the city. When he's not baking, Estefan works as a clerk at a private law firm that specializes in medical malpractice; he assists in case research and preparation. Estefan takes classes at City-As-School's Manhattan campus, including an art class that uses mural painting to teach community history. For two evenings a week he also commutes to a local community college to attend a writing workshop, where he sits alongside college freshmen and sophomores as well as a few of his CAS peers.

Over its 20-year history, CAS has emerged as a national leader in the alternative schools movement by taking secondary education beyond the confines of the traditional school setting. Through internships called "learning experiences," CAS links students with hundreds of careers that await them in the community.

School Context

CAS, which opened in 1972, was designed and piloted by a team of teachers and students with funding from the Ford Foundation. As an accredited public high school, CAS operates as an external learning school for students who have not met with success in the traditional classroom setting. CAS targets students who do not thrive in a traditional, classroom learning environment or are at risk of dropping out of school.

CAS is not a remedial program and is not intended to replace a complete four-year high school experience. Students demonstrate a range of ability, from special education to gifted-and-talented. Although sophomores are occasionally accepted into the program, CAS targets high school juniors and seniors who have completed the requisite ninth- and tenth-grade mathematics and science courses. Community internships engage students in the learning

Key Characteristics

- Carefully structured experiential learning relates learning to the outside world
- Flexible scheduling and an array of courses within and outside the school teach students to take responsibility for their own learning
- Advisory system personalizes the school experience

Number of Students: *1,042*

Grades Served: *11-12 (Some students are admitted as sophomores)*

Racial/Ethnic Breakdown:
40% Hispanic
38% African American
17% White
5% Asian
(6% LEP)

Eligible for Free/Reduced-Price Lunch: *76%*

Chapter 1 Program: *Schoolwide project*

Major Sources of Outside Funding: *National Diffusion Network (NDN)*

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process, capitalizing on their knowledge and skills from academic courses completed in their traditional high schools.

CAS's faculty has 60 resource coordinators and teacher-advisors. In addition to a main campus in lower Manhattan, CAS has satellite campuses in Long Island and the Bronx.

Students design their own blend of community internships, in-house classes, and college courses from those listed in the CAS resource catalog.

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Major Program Features

CAS's school year is divided into four eight- to nine-week cycles. Students design their own blend of community internships, in-house classes, and college courses from those listed in the CAS resource catalog. A student's schedule may be made up entirely of internships, course work, or a mixture of the two, as long as it meets the program's credit requirements and balances scheduling needs. Academic classes and external internships are ungraded; students receive "credit," "credit with reservations," or "no credit" based on their performance.

Learning Experiences

More than 70 percent of CAS students choose to participate in external learning experiences. These students spend between 20 and 32 hours per week at off-campus internship sites, called "resources." As in a real job, students interview with their prospective site supervisors and, if accepted, assume real-world responsibilities. As they become more familiar with the placement and its requirements, they accumulate substantial work experience. CAS students graduate from high school with a resume of work experience rivaling those of many students entering the workforce after college.

Students receive high school credit for each successfully completed learning experience. A student's program must include at least 20 contact hours per cycle; however, these hours may be spread across several short learning experiences or two lengthy ones. A learning experience, depending on the nature of the activity, can last for either one or two cycles.

- **Curriculum.** Each external learning experience is structured by a curriculum called a Learning Experience Activities Package (LEAP). LEAPs are developed collaboratively by the CAS resource coordinator and the external learning site supervisor and maintained as an ongoing set of course offerings. Each LEAP consists of a series of content-area goals, specific activities and tasks designed to attain those goals, and learning outcomes. All activities meet New York State curriculum guidelines and are measurable and observable. All activities are relat-

ed to students' on-the-job performance and involve completing a major project; some also involve reflection, such as keeping a journal or preparing a summary report; and some are homework assignments that require students to expand on the larger experience. Learning outcomes vary according to the nature of the placement and its facilities.

- **Internship placements.** CAS oversees a network of 1,000 student internships throughout the city at such sites as the American Committee on Africa; Marvel Comics; American Stock Exchange; Queens Museum of Science; Clairol, Inc.; Sassy Magazine; Columbia Records; and the New York Police Department. Students select areas of interest and are placed in internships subject to availability. Two popular internship resources are the New York City Department of Environmental Protection, where students take samples of the city's coastal waters and test for evidence of pollution, and the *U.S.S. Intrepid* Aeronautics Museum, where CAS students earn social studies credits by working as docents. CAS staff say that internships broaden students' horizons by putting them into contact with adults whom they would not normally meet—from garage mechanics to architects—and by enabling them to participate in the work of these professionals.

CAS oversees a network of 1,000 student internships throughout the city at such sites as the American Committee on Africa; Marvel Comics; American Stock Exchange; Queens Museum of Science; Clairol, Inc.; Sassy Magazine; Columbia Records; and the New York Police Department.

Schoolwide Project

Two years ago, CAS became a Chapter 1 schoolwide project school. The greater flexibility in the allocation of the school's Chapter 1 funds afforded by schoolwide status enabled it to add a pilot enrichment program that provides advanced assignments for students with weak academic skills. The program also includes a weekly tutoring session to help students gain strength in mathematics and writing. The preliminary assessment of the enrichment program was so encouraging that the school plans to expand it in 1994-95 to serve 40 percent of students.

On-Campus Learning

Students may enroll in academic classes at any of CAS's three campuses. In addition, they may take college courses at any of the program's 11 community and four-year college partners, at no cost. Each term, about 24 percent of students sign up for college courses; more than half of graduating seniors have taken one or more college classes; and nearly three-quarters of students who exercise this option successfully complete the coursework.

All CAS students must attend a two-hour weekly seminar for 20 to 25 students conducted by a teacher advisor. Seminars serve pri-

marily as a debriefing for student interns; the teacher advisor focuses on what students have learned from their internships and provides guidance on positive strategies for working on the job. Students not taking internships share their in-school experiences and participate with their peers in career awareness and clarification exercises.

Staffing

- **Resource coordinators.** Resource coordinators have primary responsibility for coordinating and supervising student learning, writing LEAP curricula for new learning experiences, and forging partnerships with businesses and the community to develop new learning sites. Each of CAS's 12 resource coordinators oversees between 35 and 40 students at a time. Oversight responsibilities include visits to the student work site at least once per program cycle and biweekly telephone contact with the on-site supervisor.

- **Teacher-advisors.** Although resource coordinators typically see each student only once or twice a cycle, teacher advisors interact with students at least weekly. Teacher advisors work with their students to create individualized programs and serve as the "first line of intervention" if a student develops a problem. In addition to counseling students individually and in the weekly group seminar, teacher advisors teach in-house classes in their areas of expertise.

Support for Implementation

Although it began with a grant from the Ford Foundation, CAS has continued operations with funding from the New York Public Schools, receiving the same per-pupil funding as other New York City high schools. In addition, CAS has received funding from state and federal sources for many years to support dissemination activities. For example, between 1983 and 1992, it received approximately $476,000 from the U.S. Department of Education's National Diffusion Network (NDN) to train interested schools and districts to implement the CAS model.

Teachers share in policymaking decisions at peer-level department meetings, and teacher representatives are elected to serve on the School-Based Management Team, along with selected students and parent representatives from the Parent Association.

Evidence of Success

A self-evaluation submitted to the NDN compared two randomly selected samples of 75 CAS students—about 25 percent of the total enrollment for the main Manhattan campus—with baseline performance data and with matched groups of students attending traditional high schools. The evaluation found that CAS students demonstrated a decrease in absenteeism and a decrease in the dropout rate—only 13 percent of CAS students dropped out in 1991-92 as opposed to 27 percent of controls. In addition, CAS students earned a larger number of academic course credits—an average of nearly five Carnegie units, versus an average of only about two Carnegie units for students in the control group. CAS students had a higher high school graduation rate—77 percent, versus only 27 percent of students in the control group; in addition, about four-fifths of CAS graduates went on to attend two- and four-year colleges.

The CAS program has been adopted by other high schools and has been used by educators and communities as the basis for new alternative schools. In 1977, CAS won a grant to replicate its model in New York State. In 1983, the program was certified by the NDN.

RAISING EXPECTATIONS HELPING UNDERACHIEVERS GET TO COLLEGE

Advancement Via Individual Determination (AVID)
San Diego County, California

Key Characteristics

- **School-based coordinators ensure that students enroll in college preparatory classes**
- **AVID classes combine collaborative, inquiry-based learning with the support students need to succeed academically**
- **After-school and summer activities provide enrichment**

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Number of Students: Approximately 120 in each of 300 schools throughout California

Grades Served: 6-12

Racial/Ethnic Breakdown (San Diego County):
57% Hispanic
18% African American
12% White
12% Asian or Pacific Islander
1% Native American

Eligible for Public Assistance: 49%

Major Sources of Outside Funding: School districts and state and county offices of education

Overview

Ana and her family once were homeless. Now, the Carlsbad High School graduate attends San Diego University through a scholarship that she earned with a 2.9 GPA. Her friend Veronica, a senior at Ramona High School in San Diego's Riverside Unified School District, once planned to drop out of high school to join her mother in cleaning office buildings after hours. Instead, Veronica attends advanced English, mathematics, and science classes in preparation for enrollment in the University of California, Los Angeles; she wants to become a doctor. Ana and Veronica are both Hispanic and poor; they both also participated in Advancement Via Individual Determination (AVID).

AVID is a college preparatory program targeted at underachieving minority and low-income students traditionally underrepresented at colleges and universities. By introducing students to advanced academics and tutorials and motivating them through additional activities, AVID prepares these students—and all of whom are performing below their potential—for entrance into four-year colleges and universities.

Program Context

AVID operates in more than 100 middle and senior high schools in San Diego County and other districts across the country. Created in the mid-1980s by Mary Catherine Swanson, former English Department Chair at San Diego's Clairemont High School, the program targets students who have C averages and challenges them to complete homework regularly and enroll in college preparatory courses. Participants receive an array of other supports that encourage them to think seriously about higher education. Students must maintain at least a C average to remain in the program—no small feat for the approximately one-fifth of AVID students who spend 15 hours a week in outside jobs. About 25 percent of AVID students come from homes where at least one parent does not have a high school diploma or equivalency.

Major Program Features

Organization and Schedule

The AVID program divides participants into classes of about 30 students; typically, each school has four or five AVID classes. At

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the high school level, classes include students from all four grade levels to capitalize on the benefits of peer coaching. AVID functions as a regularly scheduled elective class that meets for one period a day, five days a week. For the rest of the school day, students attend their other classes, many of which are honors or advanced placement classes.

Instruction

- **Special AVID class.** Two days a week, AVID students meet as a group for the instructional component of the program, taught by the school's AVID coordinator. Topics for these instructional sessions include writing, note taking, study skills, test taking, time management, college entrance-placement exam preparation, effective textbook reading, and library research skills.

  The research-based teaching strategies used in AVID reflect current educational reform efforts: collaborative, subject-specific learning; inquiry; and writing as a learning tool. AVID classrooms are organized by a lead teacher, assisted by staff. AVID teachers use inquiry to engage students in the learning process; problem-solving capabilities evolve as they learn to draw inferences, analyze events, and evaluate facts.

  Students learn to interpret and analyze by prewriting, drafting, and editing essays and other papers. Students are expected to take extensive notes within each class to improve their notetaking skills; at the end of each week, they turn in their notebooks for review and critique.

  At the program's inception, lessons were developed collaboratively by high school and college instructors. For example, 20 teachers of mostly advanced classes worked with local college faculty to devise a handbook of writing lessons in discourse models addressing all subjects and requiring collaboration and inquiry. The high school and college instructors team taught these lessons in both high school and college to understand the requirements at each level. In addition, college instructors of freshman-level introductory courses taught mini-lessons within the AVID program to provide a realistic venue to college work.

- **AVID tutorials.** AVID students have tutorial sessions during two periods a week. During this time, students divide into groups of seven to ten to receive coaching from college student tutors, many of whom are former AVID students. Students receive extra help in specific subjects, based on questions they

The research-based teaching strategies used in AVID reflect current educational reform efforts: collaborative, subject-specific learning; inquiry; and writing as a learning tool.

have generated from their classroom notes, as well as coaching in study skills, note taking, and library use.

Motivational Activities and Extra Support

- **Elective courses and time management.** Because the AVID class is taught during the daily elective period when other students take classes like art or music, AVID sponsors several motivational activities and extra supports throughout the calendar year so participants may also benefit from elective experiences. One day each week—usually Friday—the AVID class is devoted to a motivational activity, such as a guest speaker or a field trip to one of the local college campuses. Also, AVID students may attend summer school enrichment classes and participate in after-school enrichment activities. Although one coordinator admits that the program loses some students who cannot keep up with this extended day and school year, the positive outcome is that "by the time they are juniors, AVID students have learned effective time management—a critical skill for success as college undergraduates."

- **Support to families.** Outside of class, AVID staff maintain contact with students and families through quarterly letters, regular telephone calls, and the monthly AVID Family Workshop Series. Offered in both English and Spanish, the workshops help parents understand the increasing academic demands that are being placed on their children, acclimate parents to the idea of their children leaving home to attend college, and provide information on the college application and financial aid process.

- **Support from higher education institutions.** State colleges and universities offer support by: (1) providing college tutors to AVID classes; (2) targeting outreach programs to AVID students; (3) monitoring the academic progress of AVID students once they enroll in college; (4) involving AVID students in college activities; and (5) mentoring AVID students throughout their college careers. For example, California State University offers a residential summer bridge program for AVID high school juniors and seniors; students earn college credits for successful participation, and they and their parents receive an introduction to college life and requirements.

Staffing

- **Teamwork.** AVID schools depend on teamwork to facilitate communication among key staff. Typically, an interdisciplinary AVID site team composed of the principal, AVID coordinator,

lead counselor, and teachers meets monthly to set goals that enhance teacher effectiveness. The team also helps all teachers use the instructional methods of writing-to-learn, collaborative grouping, and inquiry.

- **AVID coordinator.** The AVID coordinator is an advocate for AVID students. The AVID coordinator teaches the AVID elective class, works with secondary school and college students and faculty to organize curricular and extracurricular activities, and helps school guidance counselors schedule students in college preparatory courses and see that they complete financial aid applications. According to one AVID coordinator, "High school counselors may not encourage these students to enroll in advanced classes . . . given their prior academic profiles. Because of many students' own low expectations for themselves, it would never occur to them to self-enroll in these classes." AVID coordinators intervene in this process by conducting additional student assessment and student and parent interviews.

  Once students are enrolled in advanced classes, the AVID coordinator continues to provide support. For example, if an AVID student is doing poorly in a particular class, the coordinator may talk with the teacher to pinpoint the problem. If several AVID students are having difficulty, the coordinator may send an AVID tutor to sit in on the class and learn which areas are causing the most confusion. The support of the entire faculty is crucial to AVID's success, so the AVID coordinator works with teachers in all subject areas to implement AVID methodology. When AVID students need extra help, teachers monitor the students' academic performance and alert the coordinator.

The AVID coordinator teaches the AVID elective class, works with secondary school and college students and faculty to organize curricular and extracurricular activities, and helps school guidance counselors schedule students in college preparatory courses and see that they complete financial aid applications.

Support for Implementation

School districts provide AVID staff development and curriculum materials, including handbooks, curriculum guides, and training guides. In California, the AVID program is funded by school districts, county offices of education, and the California Department of Education.

Staff Development

Between 800 and 1,000 administrators, counselors, AVID lead teachers, and instructional leaders from school site teams convene annually at AVID summer institutes. Assisted by teachers already trained in AVID's philosophy and methodology, the teams analyze site data, set goals, and develop teaching methods and strategies for moving students into rigorous secondary courses. Returning teach-

ers learn how to conduct demonstration lessons and coach other faculty to infuse the methods throughout the school. Additional topics include implementation of the California Curriculum Frameworks, study and academic skills, test preparation, performance assessment, and collegial networking. The summer institute is followed by monthly workshops for AVID lead teachers, semiannual site team meetings, and semiannual site visits by county office AVID staff.

Evidence of Success

AVID has a successful record for not only keeping underachievers in high school but in getting them to go on to college—at rates double and triple that of the general school population. More than 80 percent of students who participate in AVID maintain at least a C average—the minimal requirement for continued participation. An external evaluation determined a positive, direct correlation between AVID students' high school grade improvement and their length of stay in the program. The average AVID student graduates from high school with a 3.2 GPA.

Most AVID students continue on to college; a majority attend four-year institutions. In 1992, 93 percent of AVID graduates enrolled in college, a rate 75 percent higher than the overall student population of San Diego County. AVID's success in getting underrepresented students to enroll in four-year colleges and universities is noteworthy. For 1992, 60 percent of African American students graduating from AVID entered four-year postsecondary institutions—a rate two-and-one-half times the national average. Forty-eight percent of Hispanic graduates went on to four-year institutions—a rate three times the national average.

AVID has a successful record for not only keeping underachievers in high school but in getting them to go on to college—at rates double and triple that of the general school population.

Data on senior classes at AVID sites between 1986 and 1992 reveal an average increase of 48 percent in students completing four-year college entry requirements; the statewide increase for the same period is 13 percent. Once enrolled in college, AVID students tend to remain through graduation. For example, about 61 percent of AVID students who enrolled in San Diego State University between 1989 and 1992 graduated with a bachelor's degree. Of these, 14 percent enrolled in graduate school.

In 1993, the AVID program received the Salute to Excellence Award for Staff Development and Leadership from the National Council of States on Inservice Education. In 1992, AVID received an "A+ for Breaking the Mold" award from the U.S. Department of Education and a "Pioneering Achievement in Education" award

from the Charles A. Dana Foundation in 1991. Although still most prevalent in California, AVID programs have been implemented in schools in Colorado, Kentucky, Missouri, and Virginia, and more than 30 schools for U.S. military dependents in Germany, England, Belgium, the Netherlands, and Okinawa.

IMPROVING ACADEMIC PERFORMANCE BY ADDRESSING STUDENTS' MENTAL HEALTH NEEDS

West Mecklenburg High School
Charlotte, North Carolina

Key Characteristics

- Student services management team trains teachers as case managers for at-risk students
- Cities-in-Schools program provides case managers and agency referrals to at-risk students and their families
- School teams develop curriculum and provide leadership and planning

Number of Students: *1,500-1,550*

Grades Served: *9-12*

Racial/Ethnic Breakdown:
51% White
47% African American

Eligible for Free/Reduced-Price Lunch: *15%*

Chapter 1 Program: *No*

Major Sources of Outside Funding: *Cities-in-Schools*

Overview

Robert's freshman year at West Mecklenburg High School was characterized by poor grades and irregular attendance. Last year, Robert participated in the school's Cities-in-Schools program, where he developed a strong and caring relationship with one of the school's counselors. Since then the support he has received from his school has helped him to develop and achieve individual goals. Because his father is an alcoholic, Robert attends Alateen support group sessions in his community, at the suggestion of his counselor. Now a sophomore, Robert has made his first A ever, in earth science. He has graduated from the Cities-in-Schools program and now meets regularly with a teacher assigned to be his case manager.

Students like Robert at West Mecklenburg High School receive the support they need to succeed, through reforms pioneered by child development specialist James C. Comer. A student service management team, a network of case managers, and the district's Cities-in-Schools (CIS) program provide a network of support services that prevent students from falling through the cracks.

School Context

Located on the outskirts of Charlotte, West Mecklenburg appears rural but lies within a few miles of housing projects and low-income neighborhoods. Most of the students at West Mecklenburg High School come from working-class families. During the 1980s, the school had one of the lowest attendance and academic performance records in the district in addition to major safety and discipline problems. In 1992, 400 students were transferred to West Mecklenburg from a high school that had been converted into a magnet school. With abysmal teacher morale and declining expectations for students, the school's new principal realized that something needed to be done.

The principal introduced the faculty to Comer's model for school change, which emphasizes the importance of addressing students' mental health needs to help them achieve academically and become responsible community members. This model relies on shared responsibility for students among faculty members and develops collaboration, consensus building, and a no-fault environment

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among staff. Expedited by a Comer facilitator—one of the school's own guidance counselors—in 1992 West Mecklenburg developed a student services management (SSM) team, a school planning and management team, and a parents' council.

Major Program Features

Student Services Management Team

The SSM team coordinates the professional staff at the high school to address students' mental health needs. This team oversees case managers, guidance counselors, and CIS counselors and makes referrals to local social service agencies. The SSM team includes four guidance counselors; a nurse; a social worker; a psychologist; a drug abuse counselor; a speech therapist; two CIS counselors; and representatives from the local health, social services, and mental health agencies.

- **Cities-in-Schools.** The CIS program, in place at West Mecklenburg since 1993-94, targets students who have been identified during elementary or middle school as at risk of dropping out because of abuse (substance, physical, or sexual) or family problems. Two CIS counselors at West Mecklenburg provide intensive services to 75 ninth graders and their families—counseling students at the school, making home visits, arranging parent involvement activities, and teaching practical skills such as budgeting. Counselors also take students and their families to job sites and on recreational trips. At the end of the school year, the SSM team evaluates whether students in the program should continue receiving these intensive services. In 1993-94, the team determined that about half of the student participants were doing well enough academically and socially that they no longer needed the CIS program.

- **Case managers and guidance counselors.** Students who were in the CIS program as ninth graders but no longer need intensive services receive a case manager. Other students with personal and/or family problems can request a case manager. About 80 of the school's 100 teachers serve as case managers, supervising about 200 students. Case managers and their students establish short- and long-term goals and meet weekly throughout the year to discuss concerns, problems, and progress toward meeting goals.

  Before West Mecklenburg began its restructuring process, the Comer facilitator and other members of the SSM team provided case managers with a day of training to help them identify

About 80 of the school's 100 teachers serve as case managers, supervising about 200 students. Case managers and their students establish short- and long-term goals and meet weekly throughout the year to discuss concerns, problems, and progress toward meeting goals.

symptoms of problems that may require intervention. Case managers notify the SSM team when these symptoms occur and work with the team to determine appropriate interventions. West Mecklenburg also has four guidance counselors.

- **Referrals to outside agencies.** When students or their family members need treatment for substance abuse, depression, or other serious problems, the SSM team refers them to outside agencies. For example, a student who was sexually molested by her step-father was referred to a group counseling program for teenage women at the local department of mental health.

School Planning and Management Team

The School Planning and Management team developed the school's plan in conjunction with parents, the PTA, and the Comer facilitator; it also establishes school policy. Members—including the principal, an assistant principal, department representatives, and three at-large members—continue to meet monthly to address curriculum, staff development, and personnel issues. After studying alternatives to the eight-period school day, for example, the team built consensus in support of a rotating schedule with four 90-minute periods a day. In 1994-95, an instructional advisory committee—composed of the principal, assistant principal, and instructional supervisors—will focus on curricular issues.

Support for Implementation

Staff Development

As an introduction to the Comer process, the principal, the Comer facilitator, and two assistant principals participated in a week of training at Yale. With additional training, they learned to implement the Comer elements, build staff commitment to the principles, and become effective leaders. In the first two years of implementation, the Comer facilitator met regularly with small groups of faculty to help them understand the process. He also met with parents, church and community leaders, and representatives of social service agencies to explain the changes at the school.

The principal has tried to ensure that the faculty includes only teachers committed to the Comer process. He hired 30 new teachers before the 1992-93 school year, 20 new teachers before the 1993-94 school year, and 15 new teachers before the 1994-95 school year. As a result, about two-thirds of the faculty has been at the school less than three years; almost every faculty member is an advocate of the Comer process.

In addition, a team of West Mecklenburg teachers attended a workshop on using cooperative learning, seminar teaching, debates, games, and puzzles in 90-minute class periods. These teachers have provided in-service workshops for other teachers at the school.

Evidence of Success

The school climate at West Mecklenburg has improved since the Comer process was implemented in 1992. The number of students with perfect attendance has increased 195 percent; the number of students on the honor rolls has increased 52 percent. At the end of the 1993-94 school year, the SSM team determined that 40 of the students in the CIS program no longer needed intensive services because they were earning Bs and Cs and their problems outside of school had been adequately addressed.

Morale among teachers at the school also has improved. The instructional supervisor in the history department commented, "The teachers have a more active role in making decisions and running the school. We find our work more rewarding than before."

APPENDIX A
CONTACT INFORMATION

Alternative Middle Years (AMY)
Eileen Dwell, Principal
James Martin School
3380 Richmond Street
Philadelphia, PA 19134
(215) 291-4172

Western Middle School
Mary Grace Jaeger, Principal
Western Middle School
2201 West Main Street
Louisville, KY 40212
(502) 473-8345

Grizzly Hill School
Brian Buckley, Principal
Grizzly Hill School
P.O. Box 529
North San Juan, CA 95960
(916) 265-9052

Thurgood Marshall Middle School
Andrew Filer, Principal
19 Porter Street
Lynn, MA 01902
(617) 477-7360

Urban Collaborative Accelerated Program
Robert DeBlois, Director
Urban Collaborative Accelerated Program
126 Somerset Street
Providence, RI 02907
(401) 272-0881

Tuba City High School
Manuel Begay, Assistant Administrator
Tuba City High School
Tuba City USD #15
P.O. Box 67
Tuba City, AZ 86045
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Socorro High School
Nancy Sochat, Health Occupations Coordinator
Socorro High School
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Liberty High School
Diana M. Walter, Executive Director
Partnership for Academic and Career Education
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(803) 646-8361 (ext. 2378)

Oscar Thorsland, Principal
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(803) 843-9224

Ms. Frances Stokes, Coordinator
Youth Apprenticeship Program
B.J. Skelton Career Center
1400 Griffin Mill Road
Easley, SC 29640
(803) 855-8195

Middle College High School
Doug Danner, Principal/Project Director
Middle College High School
1701 Broadway
Seattle, WA 98122
(206) 281-6154

City Academy
Milo Cutter, Co-Director
City Academy
958 Jesse
St. Paul, MN 55101
(612) 298-5756

City-As-School
William Weinstein, NDN Project Director
City-As-School
16 Clarkson Street
New York, NY 10014
(212) 691-7801

Robert Lebetsky, Principal
City-As-School
16 Clarkson Street
New York, NY 10014
(212) 691-7801

Advancement Via Individual Determination (AVID)
Mary Catherine Swanson, Founder
AVID
San Diego County Office of Education
6401 Linda Vista Road
San Diego, CA 92111-7399
(619) 292-3500

West Mecklenburg High School
Dennis R. Williams, Principal
West Mecklenburg High School
7400 Tuckasoegee Road
Charlotte, NC 28214
(704) 343-6080

APPENDIX B
SELECTED ORGANIZATIONS OFFERING INFORMATION AND SERVICES FOR THE EDUCATION OF AT-RISK SECONDARY SCHOOL STUDENTS

I. NATIONAL RESEARCH CENTERS

Center for Early Adolescence

The programs at the Center for Early Adolescence include major initiatives in adolescent literacy, urban middle-grade reform, the preparation of middle-grade teachers, promotion of adolescent health, community collaborations for youth, and leadership development for young workers.

Contact: Center for Early Adolescence
School of Medicine
University of North Carolina at Chapel Hill
D-2 Carr Mill Town Center
Carrboro, NC 27510
(919) 966-1148

Center for Research on Effective Schooling for Disadvantaged Students

Contact: The Johns Hopkins University
3505 N. Charles Street
Baltimore, MD 21218
(410) 516-8800

Center for Research on the Context of Secondary Teaching

The Center for Research on the Context of Secondary Teaching performs bottom-up, teacher-centered research on how contextual conditions affect teaching and learning.

Contact: Joan Talbert and Milbrey McLaughlin, co-directors
Center for Research on the Context of Secondary Teaching
School of Education
CERAS Building
Stanford University
Stanford, CA 94305-3084
(415) 723-4972

Center on Organization and Restructuring Schools

The Center on Organization and Restructuring Schools studies organizational features of schools that increase students' intellectual and social competence. This center continues the work of the National Center on Effective Secondary Schools, which conducted research on how high schools use their resources to enhance student achievement through enhanced student engagement. The Center has a clearinghouse that contains references and research syntheses on a variety of topics relevant to secondary schools.

Contact: Fred M. Newmann, Director
Center on Organization and Restructuring Schools
University of Wisconsin
1025 W. Johnson Street
Madison, WI 53706
(608) 263-7575

National Center for Research in Vocational Education (NCRVE)
The National Center for Research in Vocational Education performs research and service with the goal of increasing access to economically rewarding and personally fulfilling work. NCRVE focuses on efforts to increase academic content in vocational curriculum.

Contact: Charles Benson, Director
National Center for Research in Vocational Education
Graduate School of Education
University of California at Berkeley
1995 University Avenue, Suite 375
Berkeley, CA 94704-1058
(800) 762-4093

II. OTHER NATIONAL AND REGIONAL ORGANIZATIONS

Boys and Girls Clubs of America
The Boys and Girls Clubs of America is a federation of local, autonomous clubs. These programs offer activities in citizenship and leadership development, cultural enrichment, social recreation, and personal educational development. There are approximately 175 clubs located in public housing projects.

Contact: Thomas G. Garth
President
Boys and Girls Clubs of America
771 First Avenue
New York, NY 10017
(212) 351-5900

Cities in Schools, Inc. (CIS)
Cities in Schools works at the community and school level to create caring relationships between adults and at-risk youth. CIS has public/private partnerships, coordinates resources, and offers social service workers' services to needy children at the school level.

Contact: Walter J. Leonard, National Executive Director
Cities in Schools, Inc.
1199 N. Fairfax Street, Suite 300
Alexandria, VA 22314-1436
(703) 519-8999

APPENDIX A

Contact Information

APPENDIX B

Selected Organizations Offering Information and Services for the Education of At-risk Secondary School Students

APPENDIX C

Planning and Implementation Checklist

The Comer Process

The Comer Process emphasizes the social context of teaching and learning and encourages collaboration between teachers, parents, administrators, and support staff to develop a comprehensive school plan. The model focuses largely on mental health, governance and management, and parental involvement.

Contact: Dr. James Comer
Yale Child Study Center School Development Program
Post Office Box 3333
New Haven, CT 06510
(203) 432-9881

High Schools That Work

The SREB-State Vocational Education Consortium is a network of *High Schools That Work*, a program to increase general and vocational students' mathematics, science, and communication achievement and to integrate college preparatory subject content into vocational studies.

Contact: Jim Clark, HSTW Assistant Director for Work-based Learning
Southern Regional Education Board
592 Tenth Street, N.W.
Atlanta, GA 30318-5790
(404) 875-9211

Junior Achievement

Junior Achievement, a nonprofit organization franchised across the United States, helps youths gain economic and business education. Junior Achievement offers a variety of programs, including Applied Economics, the Economics of Staying in School, and Business Basics. Each program is evaluated independently every three years.

Contact: Junior Achievement
One Education Way
Colorado Springs, CO 80906
(719) 540-8000

MDC, Inc.

Founded in 1967, MDC, Inc., is a private, nonprofit corporation that develops workforce and economic development programs and policies in the South. The organization focuses on a number of issues, including education.

Contact: MDC, Inc.
1717 Legion Road
Post Office Box 2226
Chapel Hill, NC 27514
(919) 968-4531

Paideia Project

The goal of the Paideia Project, facilitated by the National Paideia Center, is to provide all students with a rigorous liberal arts education that will enable them to have the skills necessary to succeed in life. Through learning, coaching, and in-depth exploration, students in hundreds of public schools across the country are taught through all or part of the Paideia method.

Contact: Buzz Nembirkow, Executive Director
National Paideia Center
Campus Box 8045
School of Education
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-8045
(919) 962-7379

III. OTHER RESOURCES

American Vocational Association
1410 King Street
Alexandria, VA 22314
(800) 826-9972

Education Commission of the States (ECS)
1860 Lincoln Street, Suite 300
Denver, CO 80295
(303) 299-3600

Manpower Demonstration Research Corporation (MDRC)
Judith M. Gueron, President
3 Park Avenue
New York, NY 10016
(212) 532-3200

National Association of Secondary School Principals (NASSP)
Gwendolyn Cooke, Director of Urban Services
1904 Association Drive
Reston, VA 22091-1537
(703) 860-0200

National Dropout Prevention Center
Clemson University
Clemson, SC 29634-5111
(800) 443-6392

United States Basic Skills Investment Corporation
1700 Diagonal Road, Suite 400
Alexandria, VA 22314
(703) 684-1265

APPENDIX C
PLANNING AND IMPLEMENTATION CHECKLIST

The following checklist is designed to assist teachers, principals, district administrators, and others in planning secondary school programs.

Strengthening and Enriching the Secondary School Curriculum

Restructuring curriculum:

- ❑ Central unifying themes
- ❑ Trading breadth for depth
- ❑ Interdisciplinary courses/units
- ❑ Internships/experiential learning
- ❑ Community service/service learning
- ❑ Integrating academic and occupational focus in coursework

Increasing all students' access to challenging curriculum:

- ❑ Heterogeneous grouping
- ❑ More flexible uses of ability grouping
- ❑ Increasing student success in gateway courses

Adapting Organizations to Increase Learning

Creating personalized communities of learners:

- ❑ School-within-a-school
- ❑ Clusters/houses/teams
- ❑ Individualized instruction (e.g., self-paced independent study curriculum, open-entry/-exit courses)
- ❑ Increasing choice (i.e., in selecting a program of study)

Using time flexibly:

- ❑ Block scheduling
- ❑ Weekly schedule structured around college classes or work experience
- ❑ Extended day/evening classes
- ❑ Summer session

Linking Schooling to the Future

School-to-work programs:

- ❑ Work-based learning
- ❑ School-based learning
- ❑ Connecting activities
- ❑ Tech prep programs
- ❑ Youth apprenticeship programs
- ❑ Career academies
- ❑ Career exploration programs

College prep programs:

- ❑ Visits to/study on college campuses
- ❑ Assistance with admissions/financial aid applications

Creating Networks of Support for Students

Increasing sense of school membership:

- ❑ Co-curricular activities
- ❑ Peer tutoring/mentoring
- ❑ Adult-student mentoring

Other support programs:

- ❑ Student advising
- ❑ School safety
- ❑ Creating partnerships with families
- ❑ Developing comprehensive support systems (i.e., integrating health, education, and social services)

Resources for Improvement

Professional development:

- ❑ New methods and materials
- ❑ Peer collaboration
- ❑ Grounding in the principles of reform
- ❑ Climate that supports professional growth
- ❑ Resources for learning (e.g., partnerships with universities)

Other resources:

- ❑ Site-based decision making
- ❑ Project planning
- ❑ Funding (e.g., Title I funding)

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Educational Resources Information Center (ERIC)

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